Hunting at High Altitudes

The Book of the Boone and Crockett Club

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COL. WM. D. PICKETT.

Hunting
At High Altitudes

The Book of the Boone and Crockett Club

GEORGE BIRD GRINNELL
EDITOR

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CONTENTS

Page

Preface 7

Col. Wm. D. Pickett 11

Memories of a Bear Hunter—

1876 15

1877 46

1878 80

1879 106

1880 157

1881 186

1882 207

1883 229

By Colonel Wm. D. Pickett.

Notes on Memories of a Bear Hunter . . 242

By George Bird Grinnell.

In the Old Rockies 295

By Daniel M. Barringer.

Ibex Shooting in the Thian Shan Mountains 314

By Geo. L. Harrison, Jr.

Contents

Page

A Shooting Trip in Northwestern Rhodesia 344
By Geo. L. Harrison, Jr.

The Condition of Wild Life in Alaska . . 367
By Madison Grant.

Deer Hunting in Cuba 393
By General Roger D. Williams.

Elephant Seals of Guadalupe Island . . . 406
By Dr. Charles H. Townsend.

The Game Preservation Committee . . . 421

Brief History of the Boone and Crockett Club 433
By the Editor.

Officers of the Boone and Crockett Club . . 492

Committees of the Boone and Crockett Club 493

Report of Nominating Committee . . . 494

Report of the Treasurer 499

Constitution Boone and Crockett Club . . 500

Rules of the Executive Committee . . . 504

List of Members Boone and Crockett Club . 505

LIST OF ILLUSTRATIONS

Col. Wm. D. Pickett . . . . . Frontispiece

Facing page

Fort Benton in 1881 38

Bull Train at Fort Benton 138

Mule Train at Fort Benton 138

Kirghiz Falconers 202

"Battlefield" of September 13, 1883 . . . 238

Khudai Khildi 250

Ivan with Roebuck Heads 266

Crossing a Snow Field 282

Returning from a Day with Ibex 298

Thian Shan Wapiti 314

Crossing a Pass 330

Pack Bull—Tekkes River 346

Facing Page

Peninsula Bear, Captured at Moeller Bay, Alaska 366

Adult Male and Female Elephant Seal, Guadalupe Island 394

Adult Male Elephant Seal, Guadalupe Island 394

South End of Elephant Seal Rookery, Guadalupe Island 406

Elephant Seals Nearly Two Years Old in the New York Aquarium 418

PREFACE

This is the fifth volume of the books of the Boone and Crockett Club, the last one having been published in 1904.

The Club is fortunate in having for the volume the chapters which treat of the hunting adventures of Colonel Wm. D. Pickett, from 1876 to 1883. For many years Colonel Pickett was one of the vice-presidents of the Club, representing Wyoming, and has had an experience in hunting the grizzly bear greater probably than that of any man who ever lived. A keen sportsman, a lover of outdoor life, and a Southern gentleman, Colonel Pickett represents the ideals of the Boone and Crockett Club. He hunted in the Rocky Mountains at a time when people there were few and game was abundant. The day of the trapper had passed, and that of the skin hunter was just beginning.

As indicated by its title, this volume deals chiefly with hunting in the high mountains. Yet this hunting does not all lie close to timber line.

Mr. Harrison's narrative dealing with the great game of Rhodesia, and that of General Roger D. Williams, about the introduced deer in Cuba, bring up forms of sport to most of us unknown.

It has been thought well to reprint here the "Brief History of the Boone and Crockett Club," prepared some time ago, and issued separately.

Madison Grant's article on the wild life of Alaska, written some years ago, has been brought down to date.

The Club has consistently striven—and with some success—to secure the establishment of game refuges in the different forest reserves. There is great promise in the State of Arizona, where, through the efforts of Charles Sheldon and E. W. Nelson, much popular interest in this subject has been awakened.

A matter in which the Club may feel a just pride is the share it had in assisting in the passage of the bill to place migratory birds under the charge of the Federal Government—a measure which originated with one of its own members, Hon. George Shiras, 3d, and which became law in March, 1913.

GEORGE BIRD GRINNELL.

NEW YORK, July, 1913.

Hunting
At High Altitudes

COL. WM. D. PICKETT

Colonel Wm. D. Pickett was born in northern Alabama, October 2, 1827. His parents, George B. and Courtney (Heron) Pickett, were natives of Virginia, and he was the youngest child. When Wm. Pickett was ten years old, the family moved to Kentucky, where he was reared and educated.

While engaged as chainman in a party of land surveyors on the northwestern frontier of Texas, near the site of the present city of McKinney, in January, 1847, the call was sounded for volunteers for the Mexican War, and he at once enlisted in Captain Fitzhugh's Company of Bell's Regiment of Texas Mounted Volunteers for twelve months, from February 2, 1847. Their services not being needed for Mexico, this company was assigned to the protection against the incursions of the Comanche and other hostile tribes, then very active, of about one hundred miles of the northwestern frontier of Texas. This frontier began at

Preston on Red River and ended at a point on the south fork of the Trinity—near the present site of Fort Worth.

After young Pickett's discharge from the service he returned to Lexington, Ky., and entered the profession of civil engineering. Serving under such distinguished engineers as Sylvester Welch and Julius W. Adams, he assisted in the survey and construction of the several systems of railroads of central Kentucky until the spring of 1855, when he was transferred to the Memphis & Ohio R. R., of Tennessee, as principal assistant engineer to Julius W. Adams, Chief Engineer. After about one year's service in the survey and location of the upper end of that road, Mr. Adams resigned, and W. D. Pickett succeeded him as Chief Engineer, and as such he finished its construction to Paris, Tennessee, in the fall of 1859.

He remained in the service of the Company until the latter part of 1860, and until the clouds of impending war cast their shadows over the land.

In the conflict which followed, he cast his fortunes with his home State, Tennessee, and except for about six months' service in the State Army, he served continuously in the Confederate Army from about April 1, 1861, to April 26, 1865, when he was paroled with the army of General

Joseph E. Johnston, as Colonel, and Assistant Inspector-General of W. I. Hardee's Corps.

During 1861 he was engaged as an engineer in the location and construction of water batteries between Memphis and Columbus, Kentucky. On January 4, 1862, he was transferred to the staff of Major General Hardee, with whom he served until the end came. About this time, certain Confederate detached forces were formed, as the Confederate "Army of Tennessee," consisting of two to three corps of two to four divisions each, according to circumstances. General W. I. Hardee commanded one of these corps, which won distinguished prominence in all the battles that followed: Shiloh, Perryville, Murfreesboro, Missionary Ridge—all the battles of the famous "Dalton to Atlanta" campaign, including the battles of "July 20th" and "July 22d" around Atlanta, and the two days' fight at Jonesboro, Ga., ending in the evacuation of Atlanta on September 2, 1863.

In all the battle reports in which this corps were engaged, W. D. Pickett has honorable mention from his chief.

In 1867 he was compelled to return to his profession as civil engineer, and was engaged, by the owners of the franchise of the Memphis & Ohio R. R., in its reconstruction and rehabilitation after

the ravages of war, until the latter part of 1873, when he resigned to take a needed rest.

After some years of recreation the voice from the Western wilds so persistently called that about July 21, 1876, he found himself on a steamer, at Bismarck, Dakota, bound for the headwaters of the great Missouri. He spent some years traveling and hunting in a country then almost unknown, and it is the adventures of those years, beginning with 1876 and closing with 1883, that are described in the following chapters. In 1883 Colonel Pickett, as will be shown in his story, took up land on the Grey Bull River, and for a long time held a ranch there devoted to raising of thoroughbred Hereford cattle.

Colonel Pickett twice represented Fremont County, Wyo., in the State Legislature, and was State Senator from Big Horn County, in the organization of which he was prominent. He has always been a devoted Democrat in politics. Since the year 1853 he has been a member of the American Society of Civil Engineers, a member of the American Association of Political and Social Science and of the American Association for the Advancement of Science. He has lived a long, honorable and useful life.

MEMORIES OF A BEAR HUNTER

On Friday, July 14, 1876, I left Minneapolis, for Bismarck, Dakota, and the country of the Upper Missouri, and the next evening reached Fargo, the crossing of the Red River of the North. Here I met the Episcopal Bishop of Saskatchewan, on the way to his bishopric in the Northwest Territories. His residence, 600 miles west of Fort Garry, or Winnipeg, covered a very large district. The winter before he had traveled two thousand miles by dog-train, his team consisting of three or four dogs, which covered about forty miles a day. He camped where night found him, sleeping on the snow. His food three times a day was pemmican, tea and frying-pan bread.

On Tuesday morning I left for Bismarck, about two hundred miles distant, reaching there that night. The plain over which we passed was generally level, and the country looked bald, gloomy and grand, without a tree, except on the streams. In this loneliness and monotony it reminded me of the grand prairie west of the Cross Timbers of

northwestern Texas. During the day no settlements nor habitations were seen, except an occasional section house for the railroad hands.

Bismarck, however, was full of people, brought there by the gold excitement in the Blackhills. At that time there were about five hundred people in the village, which was on the bluff, about a mile and a half from the Missouri and four miles from Fort Abraham Lincoln[1] on the opposite side.

It was less than a month before this that the Seventh Cavalry, U. S. A., under command of Lieut.-Col. Geo. A. Custer, had been badly defeated on the Little Big Horn River, Montana, seven of its companies surrounded by Sioux and Cheyennes, and most of the men killed.[2] A division of the regiment under Major Reno took refuge on a hill-top, was joined by Captain Benteen and by the pack-train with ammunition under Captain MacDougal. A little later General Terry came up with a large force of men, the Indians retired, and separating into smaller bands, disappeared. It was supposed they were arranging to cross the line into Canada. This report caused steamboat travel on the river to be regarded as somewhat hazardous. However, on the evening

[1]The numbers which follow in the text, refer to the Chapter of Notes by the Editor.

of July 21, I boarded the steamer Western for the Upper Missouri River, sleeping on board, for, as the steamboats did not commonly run at night, the Western was not to start until early next morning.[3] The mosquitoes here were very numerous, voracious and troublesome. However, during the latter part of the night, the weather turned cool, and this, with the motion of the boat, which started at seven, gave some relief.

The immediate bottom of the Missouri here does not differ greatly from that of the Lower Missouri, or the Mississippi below Cairo. Just back of the timbered bluffs, however, the ground rises in high hills, often abrupt and precipitous. Late in the afternoon we saw two antelope, and at midnight came to the site of Old Fort Clark, and there tied up for the night. At 2 o'clock the next day we reached Fort Stevenson,[4] a two-company military post in the bottom between the highlands and the river. In the evening we reached Fort Berthold,[5] said to have been established by a Frenchman of that name, where lived the Arikara[6] Indians, who at this time were occupying lodges made of canvas. Near the fort was their burial ground, where the bodies were placed on scaffolds supported by poles, and from every grave fluttered something which looked like flags, but which really were offerings

of calico. These Indians are said to be most friendly to the whites, having long been at peace with them.

During the night of July 24 the steamboat lay all night at a woodyard above Berthold. An early start was made next morning, and about 9 o'clock a war party of twenty Indians appeared on the south bank of the river. When they appeared on the hills in the distance, most of us thought they were buffalo, but my field glasses soon corrected this impression. A few of them appeared on the cliffs above the boat and shouted salutations to us, waving a flag, but the most of them kept back out of sight. As they moved toward the river, and when they appeared riding along the bluff, 300 feet above the steamboat, it was supposed they intended to fire into the boat, and there was a scampering of the passengers from the decks. They were elaborately painted and were evidently a war party.

A rumor was current at Berthold that General Terry had had a battle with the Sioux on the Yellowstone River, and had beaten them.

During the morning we passed the mouth of the Little Missouri River. Since leaving Bismarck, the weather had been pleasant. There had been some cloudy weather, but no rain. The hills among which we were constantly traveling were

often completely bare of vegetation. At a woodyard where we stopped, we found half a dozen Gros Ventres Indians,[7] who reported a camp of Standing Rock Sioux Indians on a hunt only a few miles away. Many of these Indians were armed with Springfield needle guns and Spencer rifles. From time to time they received runners from Sitting Bull, and the report was that Terry was moving against the Sioux and pressing them.

Here for the first time I saw one of the Indian bullboats.[8] It was nothing more than a buffalo hide stretched by willow twigs about an inch in diameter into the shape of a large, but quite deep, bowl. At the top it was about four feet across.

Early on the morning of July 25, a few buffalo were reported in the hills. They were seen by a number of people, for here the mosquitoes were as bad as at Bismarck, and all the passengers sat up and fought mosquitoes all night. During the morning we passed a band of eighteen lodges of Sioux Indians, who were crossing to the north side of the river. They declared that they were very hungry and seemed anxious to stop the boat. Some of the passengers thought them hostile, but they made no offensive demonstration. The men seemed large and athletic, and were clad in blankets and breech clouts.

The woodyard[9] passed to-day was on the defensive, for here an Indian had recently been killed by one of the choppers. A party of Indians were seen in the act of creeping up to another woodchopper, and just as one of them was about to shoot at him, one of his fellows shot the Indian. The others scampered off, and since then have more than once attempted to kill the keeper of the woodyard.

About 6 o'clock we reached Fort Buford,[10] where we discharged much freight and live stock for the Yellowstone Expedition under Gen. Terry. Buford was an eight company post, pleasantly situated on the north bank of the river in an extensive plain, with a range of hills a mile to the rear. The garrison consisted of about a hundred men.

For a hundred miles above Buford the country bordering the river is not so broken, and sometimes broad valleys with a few cottonwood trees and covered with fine grass, come down toward the river. In some places it almost resembles a Kentucky bluegrass woodland.

We reached Wolf Point at 7 o'clock that night, and found here a large band of Sioux Indians. These were of the northernmost group of the Sioux, known as the Assiniboine.[11] They had just returned from a buffalo hunt sixty miles to the

southwest, where they killed 370 buffalo. Deer and elk were reported plenty.

My room mate was Major Mitchell,[12] of Quincy, Ill. He was the Indian agent for all the Crow, Blackfoot, Gros Ventres and Sioux Indians living between the Missouri River and the British line, and from Fort Union west to the Marias River. He was a pleasant fellow and seemed to like me, and when he invited me to stop with him at Fort Peck and make a hunt for buffalo I determined to accept. It was to this agency that Sitting Bull and a part of the Sioux belonged, who were now fighting the troops on the Little Big Horn River.

When we reached Fort Peck in the evening, I found a stockade of two or three acres in extent. It was made of cottonwood trees twelve feet long and ten inches in diameter, set on end, which would make a very good defense against rifles, but immediately in the rear of the fort was a range of hills two hundred feet high, and this commanded the post. Within the stockade stood comfortable log huts, with sod roofs, yet there were only ten or twelve men to man the fort, and any reasonably large force could capture it in a short time.

For a day or two now it had been very hot, a dry parching wind blowing from the south. I had been

troubled by illness since leaving Fargo and this grew worse daily, so that I was feeling quite badly and was in no condition to move about much.

The garrison of the little fort was much alarmed about hostile Indians reported in the neighborhood, and indeed the smoke of a camp was visible in the southwest, a few miles distant. The day before a Hunkpapa Sioux reported from the hostile camp on Tongue River, riding a gray horse branded "C Company, 7th Cavalry." He told Major Mitchell that he had reached the hostile camp after the fight was over, and that he had traded for the horse, but to others he said that he was in the fight, and this no doubt was true. On being offered some flour he refused to take it unless sugar also was given him. He asked for clothing, and this also was given him, for Major Mitchell wished to conciliate the Indians, as perhaps there might be hostiles in the neighborhood.

Early in August I was still quite ill. A general feeling of uneasiness pervaded the fort and there were occasional reports that hostile bands were approaching to attack it. On the second of the month, twelve more Hunkpapa arrived from the hostile camp, and two of them were riding horses branded "E Company, 7th Cavalry." One had a Colt's revolver and a part of a surgeon's case

of instruments. They had three more cavalry horses in their bunch. Later the same day another band appeared on the other side of the river, but suddenly decamped, because they believed that the whites were about to fire on them.

All these Indians talked as if they did not wish for war, and Medicine Cloud professed to have been sent by Sitting Bull to ask for peace. They said that they would not fight the soldiers unless attacked, but if attacked, would defend themselves. All wished to buy ammunition.

The Indians who were coming in reported other Indians on the way from Sitting Bull, and no one knew what this scattering meant. Some believed the Indians were trying to purchase ammunition to take back to the hostile camp on Tongue River, while others thought that Sitting Bull's force was deserting him on account of the number of troops being concentrated against him.

Believing that there was reason for alarm, I advised that a new block house, already begun in front of the stockade, be finished at once and stocked with ammunition and provisions, and that if seriously threatened we should all retire into the block house and burn everything in the stockade. Major Mitchell declared that he would do this at once.

During all this time there was a camp of four or five hundred Indians only a short distance from the agency. It was occupied by old men, women and children, the families of the actively hostile young men who were with Sitting Bull fighting the soldiers, while these non-combatants were being fed and cared for by the Government. The warriors recently returned from the hostile camp, thirty to fifty in number, and bringing with them the spoils of the fight in the shape of cavalry horses, arms and other plunder, were going directly to this camp.

One day word was brought to the agency that a war dance would be held at the camp that night. The affair was genuine, the participants having just returned from the slaughter of a part of Custer's regiment. During the previous winter I had attended a war dance by a band of Chippewa Indians, at Vermillion Bay, Minnesota, and I was curious to see the difference between this dance as performed by tame Indians and by these thoroughly savage people of the plains. Believing that "one might as well be killed for a sheep as a lamb," I set out with one or two employees of the post, and was on hand soon after the performance began.

The tipi used in the dance was the usual living

tent. The spectators were women and children, and were gathered in groups close around the sides, leaving the center open for the dance. The dancers appeared clad only in their breech clouts. Their bodies and faces were horribly painted, mostly in black.[13] The three musicians squatted at the side of the tent, each holding in the left hand a drum with only one head, on which each beat with a stick. As we approached the tipi, we plainly heard the shouts and whoops of the dancers, and when we entered found ten or twelve warriors dancing in the middle of the tipi. As they moved about, each jumped up twice on one foot, landing on the heel, and then repeated the jump with the other foot, keeping time as they danced to the music of the drummers. These, as they beat the drums, chanted a mournful song, which in some cases was taken up by the warriors. Frequently these last appeared to be in a high state of excitement and uttered blood-curdling yells and whoops. The women and children lying about close under the lodge coverings did not seem particularly interested in what was going on, nor did they enter into the excitement. After remaining about one hour we withdrew.

The principal object of my stay at Fort Peck was to take advantage of the opportunity to make

a hunt with the French half-breeds,[14] who, as Major Mitchell was informed, would soon reach Fort Peck to deliver a quantity of pemmican, which they had contracted to supply to the agency. These people were the descendants of the Indians and the original French population of western Canada. They were civilized, Christianized and Catholics, and certain bands of them came across the border each season and followed the herds of buffalo which roamed over the plains between the Missouri River and the Canada line. In winter these vast herds tended to drift southward before the northerly winter winds, as far as the valley of the Yellowstone. The French half-breeds earned their living by following these buffalo, killing them as they needed them, saving and dressing the skins, and making pemmican.[15]

Pemmican consists of meat that has been thoroughly dried, beaten and ground between stones until it is very flimsy and loose. It is then packed into a mold of green buffalo hide from which the hair has been removed. The interstices are then thoroughly filled by pouring in hot melted tallow. The dried meat must not be packed so tight as to prevent the melted tallow from thoroughly mixing with the lean dried meat. The package is then sewed up, and when thoroughly cold is easily

handled. It weighs about a hundred pounds to the package. Sometimes choke cherries or buffalo berries are mixed with the tallow. Pemmican is very palatable and nourishing, and is largely used in winter travel in the British Northwest.

These French half-breeds were well armed, good hunters, and made their living from the buffalo. The robes they sold at three or four dollars each. Pemmican they sold to the Indian agencies, always reserving enough for their own winter use. Their means of transportation was unique, and suited to the open prairies over which they roam. It consisted of two-wheeled carts with wooden axles and without any iron or steel in their construction. The entire vehicle was bound together with buffalo rawhide. These carts were usually drawn by one or two hardy Indian ponies. If two, they were driven tandem. If a cart broke down it was easily repaired by means of the strings and lines and rawhide which all possessed. The axles were ungreased, and when the half-breeds were moving, the cries of the wheels could be heard a mile off. Their wives and children traveled with them, and they lived in lodges like the Indians.

These half-breeds were seldom molested by any of the prairie tribes, and were on good terms with all of them, though occasionally young men on

the warpath approached the camps and tried to run off horses. In case of danger, the half-breeds brought their carts together in a circle, placed the ponies within it, tipped up the bodies of their carts, and behind this fortification were absolutely safe from the charge of any enemy that might attack them.

Soon after my arrival at Fort Peck the band of half-breeds came in, their carts groaning under their loads of pemmican. The leader was a wide-awake, fairly educated and intelligent man. I could have gone out with them, except for my illness, which would have made the trip suicide.

I shall never forget the kindness that I received from the officers of the agency during this illness. The surgeon, Dr. Southworth,[16] was especially kind, and I saw a great deal of him. He was much interested in collecting freaks of nature, and among his trophies were pieces of three separate white buffalo robes. These he valued very highly. Dr. Southworth told me of a white beaver skin owned by a person in Fort Benton, Montana, whither I was going, and said that he believed it the only white beaver ever heard of this side (north) of the Union Pacific Railroad. I determined that I would try to obtain it for the Doctor, and when in Fort Benton the following November, I hunted it up.

I found it in possession of a Mr. Evans, who told me that it was trapped on what was afterward called White Beaver[17] Creek, a tributary of the Yellowstone River, below the mouth of the Big Horn. Believing this to be the only white beaver ever trapped in the Northwestern Territories, I gave $25 for the skin and sent it to Dr. Southworth, who was much gratified to receive it.

On the prairie back of Fort Peck was a great burial ground of Indians that had died at the agency. It could be seen for a long way down the river, and used to attract much curiosity. The graves were not dug in the ground, but each body wrapped in its robe or blanket, was placed upon a platform about twelve feet high.

The scaffold[18] rested on four poles, to which it was bound by thongs of rawhide. While the people were journeying here and there over the prairie the bodies of the dead were deposited in trees, where they were firmly tied, and at a date later than this I observed that all the trees on the river near Cow Island held one or more dead bodies. After having been thus put in the trees and on scaffolds, no further attention was paid to the dead.

It was not difficult to surmise the origin of this custom; if buried, bodies were quite sure to be dug

up by wolves and other predatory animals. Besides this, the Indians, until the advent of the white man, possessed no tools of steel or iron. Pick and shovel, the only tools with which a grave might be dug, were unknown among these nomadic tribes at that time.

My stay at Fort Peck lasted for about a month —from July 29 to August 27, on which day I left by the steamer Key West to go further up the river. This was the first vessel that had passed up stream since I reached here. During the whole time of my stay I had been ill and had been treated with the utmost kindness by Major Mitchell and Dr. Southworth, whose conduct emphasized again the lesson learned long ago, that this world is full of good, kind, high-minded people, no matter what their condition and surroundings in life.

Cow Island Crossing, where we landed four days after leaving Fort Peck, was the only route by which "bull teams" could reach the river. The post was located near the mouth of Cow Island Creek, which comes in from the north, and was the head of low water navigation. By the large freight outfits which came down to the river at this point, was distributed a vast amount of freight over all Montana. The route, after leaving the valley of the river, skirts the foot of the Bear Paw Moun-

tains on the south and goes on to Fort Benton, about a hundred and fifty miles from Cow Island. For protection to the freight discharged here, a company of the Seventh U. S. Infantry was stationed at this point. The freight was under charge of Col. Geo. Clendenin,[19] an old-timer in the country and a very intelligent, reliable and good business man. He was from Washington, D. C.

Among the large and well organized freighting outfits of that day, I recall one, the Diamond-R, and another owned by Murphy, Neill & Co. Each outfit consisted of seven teams, and each team of seven yoke of oxen, each team of oxen pulling three wagons linked together. At this time the leading wagon was commonly loaded with about 3,500 pounds of freight, while the intermediate and trail wagons carried smaller loads. To each outfit there was a foreman, a driver for each team and a night herder; all were well armed with repeating rifles. Usually they made camp early in the day and then turned loose their bulls to graze under the control of a night herder until the next morning. The average day's journey was from ten to fifteen miles. These freight outfits could follow almost any route over the plains country. If they met with steep ravines or boggy places they had the labor and tools to repair the road. In case of a steep, hard

pull, the trail wagons were dropped, and each wagon pulled up separately and then assembled at the top of the hill. If danger from hostile Indians threatened, the wagons were brought together to form a fortification, and the nine or ten expert shots within the circle of the wagons usually gave a good account of themselves. It was through men able so to adapt themselves to surrounding conditions that the magnificent Empire of the Northwest was wrested from the control of the savage. At that date Bismarck was the nearest railroad point on the east, while on the south it was Ogden or perhaps Corinne. The great waterway of the Missouri River furnished Montana and a great portion of the British Northwest with most of the necessaries of life, as clothing, sugar, coffee and canned provisions. The only articles of export were gold from the placer mines in the mountains —which usually went out by Ogden—and the skins of various furred animals, such as beaver, fox and wolf, together with the hides of the antelope, deer, elk and buffalo.

At Cow Island I spent a very enjoyable month from August 31 to September 28. Black-tailed—mule—deer were fairly abundant, but there were no elk or bear. I made frequent excursions into the adjacent hills and killed some deer, which were

always acceptable at the post. As the weather was dry and the temperature agreeable the time passed very quickly.

During the autumn the gold excitement in the Black Hills brought down from up the river a number of miners on the way to the Hills. From one of these I purchased a black, bald-faced horse, Charlie, with saddle and bridle, while from another I secured a pack mule with a complete outfit for packing. I was now independent, and could go anywhere.

During my stay at Cow Island, two boats came up the river, the Durfee and the Benton. On one of these was Lieut. Schofield, of the Second Cavalry, with a number of recruits.

It was unsafe to make the trip to Benton alone, and for some time I had been awaiting some company, and this was my chance. Lieut. Schofield needed a pack animal, which I had, and which carried a part of our things. A good man was employed as packer and cook, and on the 28th of September we pulled out from Cow Island. On the second evening we camped at the foot of the Bear Paw Mountains. I had gone ahead and killed a buffalo, which furnished food for the fifty souls of the outfit until Fort Benton was reached on the 3d of October.

Fort Benton was then a place of about eight hundred people, and contained three trading stores —I. G. Baker & Co., T. C. Power & Co., and Murphy, Neill & Co. Here I met W. G. Conrad, manager of I. G. Baker & Co., and his brother Charles, who were from Virginia, and had served as Confederate soldiers during the Civil War. I met also Colonel Donelly, who had served in the Federal Army, and who later was conspicuous in the Fenian troubles on the Canadian border. For ten days I hunted with Colonel Donelly in the foothills of the Highwood Mountains, and later made an arrangement with two sons of Mr. Hackshaw, living on Highwood Creek, to make a hunt lasting for a month. Their object was to get a supply of winter's meat for Mr. Hackshaw, while I was anxious for sport.

We left the Hackshaw ranch October 20 for the Judith Basin, about fifty miles to the south, where buffalo were reported abundant. My hunting companions were Cornelius, twenty-one years of age, and John, sixteen, both wide-awake boys and good shots. I took with me my riding horse and pack mule, and my rifle was a long-range Sharp, carrying a 90-450 or a 90-520 shell. Our route lay by the ranch of Oscar Olinger on Belt Creek, and we consulted with him and his partner,

Buck Barker, as to the best hunting grounds. They had just returned from a buffalo hunt in the Judith Basin, and told us that a party of Nez Percés Indians of ninety warriors had just passed through the Judith Gap after buffalo. They advised us to go up on the west slope of the Highwood Mountains for elk and buffalo. We took their advice, and on the 29th day of October moved up one of the branches of Belt Creek, a day's journey, and made permanent camp.

It was on a beautiful mountain stream full of trout, and we caught enough for one or two meals that evening. The next day, riding up to the base of the mountains, about a mile distant, we saw during the day twenty-five deer. I killed a blacktail buck, and Cornelius a whitetail buck. About one o'clock, just as I had killed my deer, a fierce snowstorm set in. When I reached camp with the deer I found everything comfortable. The storm ceased before dark, and during the night the sky cleared.

The next day it again began to snow and stormed hard all day from the northwest, but on the first of November the storm ceased, leaving fifteen inches of snow on the ground. The following day it was cold, only a little above zero, but I hunted and killed nothing. The snow was now getting

so deep that the horses could not dig through it and secure food enough to keep them in good condition, so we determined that they should be sent back to the ranch, to be brought out here again as soon as the snow melted enough to enable us to get the wagon out. Accordingly, on the 5th of November, John started for the ranch, packing two deer on one horse and riding the other. He believed that twelve or fifteen miles would take him home, but I feared that he might have trouble with snowdrifts. Cornelius and I remained in camp with little to do, for the snow was two feet deep, and it was difficult to move about in it. However, we had plenty of provisions, abundant venison and a brook full of trout, almost in front of the tent door.

On the 6th of November Cornelius and I determined to make a hunt. We did so, and killed two deer; but returned at night almost broken down with fatigue, for the labor of walking through two feet of snow was extraordinary. The next few days we spent in camp, loading cartridges, fishing and performing various camp tasks. The weather was mild and the snow thawed so rapidly that we determined to hunt the following day. It was still warm, and I set out and followed three white-tails up into the pines where I killed a large buck

at three hundred yards distance. On my way home I killed a large doe at a hundred and fifty yards. I saw two elk tracks. Cornelius, who had returned before me, had killed an old doe and had crossed the trail of a large band of elk—forty or fifty, he thought—that had passed through our hunting grounds the day before. One of the deer that he had killed before had been eaten by some large animal.

November 10 was mild again, and the snow too noisy for hunting. I found deer very scarce, and believed that they must have left. I saw but one and got that at long range. On my return to camp I found John had come back with the horses. On his way home on the 4th he was lost in a snowstorm and lay out all night.

Now that we had the horses, we packed into camp the game that we had killed, and Cornelius killed another large buck. On the following day the work of bringing in the game continued. I went hunting in the morning, but saw only four deer, and reached camp on my return just before one of the fiercest snowstorms I ever experienced. The wind blew fiercely, and the snow fell fast, while the thermometer went down to 5 degrees below zero at 7 P. M. The next day it was still colder, 16 degrees below, but windless. We packed

up and moved camp to Willow Creek, where there was very little wood. At 6 o'clock the thermometer was 5 degrees below zero. We slept on the snow without putting up a tent, and went to bed early to save firewood. The next day it was warmer, 20 degrees above zero at sunrise, and there was every sign of a hard storm. We determined to go to Highwood Creek without delay and reached Mr. Hackshaw's ranch by dark. A few miles from the base of the mountains the snow was almost all gone, except what had fallen a few days since. It was reported from Benton that Tilden had been elected President, which greatly rejoiced me.

After a few days at the ranch, I asked Mr. Hackshaw to take me to Fort Benton, and we set out on the 18th of November. In the town I found the result of the recent election still in doubt, and the Democrats very much wrought up over the belief that the opposition was determined to hold the control of the Government at any cost. So strong was the feeling that Colonel Donelly wrote to a prominent Civil War comrade, now residing in Illinois, that Montana was prepared to furnish a regiment of men to assist in seating Tilden.

At that time Fort Benton was remarkable as being the most orderly place in the Territory, per-

FORT BENTON IN 1881.

haps in any State or Territory. There were twenty saloons in the place, yet I never knew a town more free from disorders of any kind. In past years, when two or three "bull outfits" happened to meet there, the men connected with them, having been out on the plains for several months, would often set out to have a good time, and would be very boisterous in the work of "painting the town red." This had been carried to a point where it became an unbearable nuisance, and at a recent election the best people, saloon-keepers and all, had wished to elect a set of county officers who should reform things. They had chosen a sheriff,[20] John J. Healy, a man noted for high character and fearlessness, a county police judge, who was a discharged U. S. soldier of proper characteristics, and other officers of like stamp, and a strong public sentiment sustained all these. At the least disorder the offender was brought before the police judge, who promptly fined him fifty dollars or imposed a jail sentence, or both. This course was firmly carried out until the little jail was full to overflowing, and by that time the disorderly class recognized that the public were determined to have good order, and accepted the situation.

After two weeks pleasantly spent at Fort Benton, I started on December 3 by wagon for the

ranch of Oscar Olinger on Belt Creek, about thirty miles to the south of Fort Benton. Here I remained until February 7, 1877. Deer were abundant in the foothills of the Highwood Mountains and Belt Creek valley. The weather was bracing and splendid. For most of the time it was a comfort and pleasure to be all day out of doors, especially when one had an object in view—the finding of meat for eight healthy souls and two dogs. With this feeling and with my love for hunting, it may be understood that these sixty-six days were greatly enjoyed. During thirty-seven days of this time the temperature in the middle of the day was so mild that the snow melted, and sometimes this melting continued through the night. On only two days was there rain. The temperature was above zero for forty-five days, and at least fifty days were sunshiny. The minimum temperatures for January were 16 degrees below zero on the 23d, and 26 degrees below zero on the 24th. In February the minimum temperature was 15 degrees below zero on the 18th.

The waters of Belt Creek were open over the rapids most of the winter, and on the 5th of February, Donelly and I went fishing near the ranch, and after fishing two hours on this warm day he had caught twenty-four mountain trout and

I had caught twenty-three; my twenty-three weighing, after being dressed, sixteen pounds. I sent these to Fort Benton with my friend Donelly. I did most of the hunting for the ranch, though Olinger occasionally went with me to help pack in the game.

During my stay here I exchanged my horse Charlie for Olinger's mare Kate, a little animal only fourteen hands high, well formed and enduring, and trained through Olinger's long use of her in hunting as a most perfect hunting animal. I valued her very highly and owned and cared for her during the remainder of her life. At this date she was six years of age, and she died at my ranch on the Grey Bull River in 1893, which made her twenty-one years of age at death. Olinger had a well-trained dog, Major, thoroughly broken to follow at heel, and if a deer was wounded he always caught and held it.

At this time and earlier, the plains bordering the Missouri and Yellowstone rivers, the Marias River, the Judith Basin and Musselshell country and the Yellowstone Valley on the south were roamed over by antelope and buffalo in countless numbers. In the foothills of the mountains which rose from the plains were large bands of elk and white and black-tail deer in great abundance. Many

of the early settlers of that day, as a means of livelihood, devoted their time to obtaining the hides of all these animals and poisoning the carcasses with strychnine to secure the hides of the large gray wolf, the coyote and other carnivorous animals.[21] These hides, after being dried, were salable at the various trading stores. One man, Barker, had a record of killing thirty-two antelope in one day. As the antelope left the Missouri River, after watering, they went up a narrow coulee in the Bad Lands, from which there was no outlet. Barker followed them, and by his repeating rifle, as they attempted to pass him, he killed thirty-two.

At this time Olinger had a few cattle and had settled down on his ranch to attend to them, while Barker was prospecting for precious metals at the head of Belt Creek. In the end, as the discoverer of the Barker Mine, which I was glad to learn he sold for from $15,000 to $20,000, he was successful. Col. Geo. Clendenin, already spoken of, became in after years manager of these mines, and eventually lost his life there.

Although I was kept fairly busy in securing meat and packing in the deer, occasionally assisted by Olinger, I visited Fort Benton during the Christmas week, leaving the ranch on the 24th of De-

cember. When we reached the river opposite the town, we found to our dismay that the ice was running so thick that it was impossible to operate the ferry boat, and we could not get across. We were without blankets, food or firewood; the temperature stood at 12 degrees below zero. There was no house behind us for twenty miles, and before us ran the turbid river, surging with broken ice. We were at a loss what to do. At last some one suggested that three miles below there was a cabin where we might find shelter. We went there, found the owner at home, and he took us in and made us as comfortable as possible. The next morning we found the ice not running and the river frozen over, and by careful sounding with an ax and pole, and stepping from one ice cake to another, we finally crossed over and reached Benton at noon.

As I walked about the town with a friend, I saw on its outskirts a very large adobe building[22] with a high adobe wall in front, and asking about it, I was told that fifty years before it had been built as a fort and trading store by the Northwestern Fur Company; that it had only one entrance through the outer wall, and was built for defense against Indians.

I asked my friend why it was that it was no

longer occupied, and he replied, "It is occupied," and gave me the following explanation:

"When a military post was established at this point, this old adobe building, apparently unoccupied, appeared just what was needed for a fort, and the Government at once purchased it and installed its garrison—two companies of infantry. No sooner were the soldiers settled in their new quarters than the inhabitants, who had occupied these quarters for twenty-five or thirty years, sallied forth in defense of their home, and in bands of thousands assaulted this detachment of the United States Army. The severe conflict lasted for a week or more. Every device of the military art was brought to bear, every pound of the druggist's art was applied. All efforts were futile. After a gallant fight this detachment of the U. S. Army was driven bleeding from the fort and compelled to take refuge in a frame building in the center of the town, where it was quartered at the time of my Christmas visit."

Early in February the blacktail and whitetail deer were both becoming poor, and as winter was now at its worst, I determined to go to Helena, Mont., for the rest of the winter and spring. The contrast between life on a ranch engaged in hard work, and living in town seemed worth trying, and

accordingly I started. After spending a week in town I went with I. Hill, the manager of one of the stores, to Fort Shaw, in his buckboard, and from there to Helena, which I reached February 17. Here I spent the remainder of the winter.

My chief recreation in Helena was long-range target shooting with a few gentlemen of that city interested in this sport.

1877

I spent part of the summer of 1877 journeying along the Missouri River from a point opposite Helena to Fort Benton. Apart from my hunting experiences, the most interesting thing I saw was the Great Falls of the Missouri, about thirty miles above Fort Benton.

There are a succession of falls, extending seven or eight miles up the river. The lower falls form a cascade of eighty feet fall for half the width of the stream, the other half having a slope of about 45 degrees. At high water, these falls in volume and in evidence of power are second only to Niagara in this country.

The Great Falls of the Yellowstone are more beautiful, but lack the grandeur and mass of the two just named. Of the Great Falls of the Missouri, perhaps the most interesting is one about three miles above the main fall, with a cascade of about forty feet fall for the full width of the river.

I had come so far north as this, expecting that a friend from Fort Benton would accompany me

through the Yellowstone National Park in the early autumn, but in this I was disappointed. I therefore prepared to make the trip alone.

I had not yet discovered the luxury of traveling with a pack outfit, and was using a light, two-horse spring wagon, driven by Levi, a Missouri colored man, who also acted as cook. The route lay through the Judith Basin, thence around the great hills of the Crazy Woman Mountains to the Yellowstone River, and up that stream. The Judith Basin, formed by the Highwood Mountains and Belt Mountains on the north and west and the Snowy and Moccasin ranges on the south and east, was rich in grass, and at that season of the year was usually the resort of immense herds of buffalo. Buffalo were usually followed up by the Indians. I was advised by many old-timers and frontiersmen that it was very dangerous to make the trip through that basin at this time of the year. The only white men on the route were a ranchman at a trading store on the Musselshell, and another ranch on the Yellowstone River, five miles above the mouth of Big Timber Creek. As the abandonment of this route would oblige me to give up my trip through the Yellowstone for that year, I determined to go on. Levi, who had seen a good deal of the Indians, was willing to go with me.

On the 15th of August, we passed from the waters of Belt Creek through the Belt Pass and into the Basin, which contained many rich valleys and has long been occupied by stockmen. We passed through the Basin without mishap, though almost every night there was an Indian scare. In the outfit there was a little red mule that was a splendid sentinel, for whenever anything approached the camp he would give a succession of snorts. We reached the vicinity of the Judith Gap August 19.

On making camp on the evening of August 19, we discovered the advance of a herd of buffalo coming through the Judith Gap from the Musselshell country. The next morning camp was not moved, but we approached the outskirts of the immense herd with care, so as not to alarm the main body of the buffalo. After killing what meat we needed—a fat calf—a high butte was climbed, and we had a view of the whole gap, about one mile in width. It was a warm, lazy day, inducing in man or beast that common malady known as spring fever. There, in sight of us, were about 5,000 buffalo, lolling about in various positions, some grazing, some lying down and some old bulls sitting up. The scene was new to me, and I viewed it for an hour through a good pair of field glasses.

I noticed then, for the first time, a peculiarity in which the buffalo differs from other split-hoofed animals. Cattle in rising from a prone position lift the hind part first and then the fore part, as do also the deer family. A white-tail deer, or antelope, if alarmed, will spring from the ground hind and fore parts at once, apparently. My observation that day with wild buffalo was that they rose with the fore feet first, and then the hind feet. A horse rises in the same way. On that lazy spring fever day there were quite a number of old bulls sitting up, something like a dog, lolling about and enjoying the sunshine, and from this peculiarity of the buffalo doubtless old Sitting Bull derived his name.

At 11 o'clock at night a courier passed our camp with dispatches for the Seventh Cavalry, Colonel Sturgis, with orders to repair at once to Fort Ellis in consequence of the setback received on the Big Hole River by General Gibbon in his attack on the Nez Percés Indians, who, after repulsing the onset of the soldiers, continued their march toward the Yellowstone and the buffalo country.

We reached the trading post of Mr. Fettig at the forks of the Musselshell on the 20th, and spent a day at the camp getting information from Mr. Gordon and other ranchmen of that vicinity as to the best route for wheels to the Yellowstone

Valley. They agreed to put me on the trail of the only bull train that had ever passed through that country around the eastern foothills of the Crazy Woman Mountains.

We left camp on the Musselshell, August 22, accompanied by Mr. Gordon, who volunteered to stay with me until the wagon road was reached. At noon we passed Big Elk Creek, where we met a Mr. Miller, who had established himself in a dugout on the side of the mountain and was looking after a considerable band of Oregon horses in a splendid range. We camped eight or ten miles beyond.

It was many years afterward—in Billings, Montana—that I met this same Mr. Miller, who informed me that the night after we had met on Big Elk, a band of Piegan Indians had swooped down on his band of fifty horses and made away with them. The country was too sparsely settled to get together a force sufficient to pursue. The loss did not appear to have discouraged him, for at the time we met again he was a prosperous sheepman of the Yellowstone Valley.

Just one year afterward, in the same vicinity, a war party of the same tribe made a dash at about 11 o'clock at night on a large horse freight outfit loaded with rifles and ammunition for Walter

Cooper, of Bozeman, Montana, which was camped at the big spring in the Judith Gap. But for the vigilance of the night herder in giving timely alarm, and the vigorous fusilade given them by the foreman of the outfit and the drivers, they would have made off with about fifty horses. My small party was camped about six miles away on the road to the forks of the Musselshell. We were not disturbed.

After dropping into the wagon road from Judith Gap to the Yellowstone River near Porcupine Butte, Mr. Gordon left me on the 24th of August, much to my regret. He is still living, as is understood. Without mishap we reached the Yellowstone Valley at the mouth of Big Timber, and made camp in the first or lower cañon of that stream on the evening of the 26th. We had passed only two ranches on the route—Gage's and Carpenter's—the only ranches seen since leaving the Musselshell. This camp was within two miles of the present site of the flourishing city of Livingston.

At daylight of the morning of the 27th, camp was aroused by a commotion among the horses made by a black bear, which had been feasting on bullberries all night in a neighboring thicket. Levi, who was investigating the cause of the racket, had

a close shot at the bear, but on pulling the trigger found no cartridge in the rifle, and the bear escaped.

It was a cool and sharp morning, and old Bones, the horse I had been riding for ten days, was made lively by the crisp air, and on my mounting, in a shorter time than it takes to write it, he had commenced to pitch and eventually threw me a somersault over his head. I landed on my back—a very hard fall, the effects of which I felt for several days. This was the second fall he had given me, and I determined on revenge. I decided that I would never mount him again, and that I would get rid of him on the earliest opportunity. He had been bought as a harness horse in Helena, but on the first hard pull he had balked and would go neither forward nor backward. After worrying with him for a day or so, it became necessary to put my pet hunting mare Kate in his place in the wagon. I had been riding old Bones ever since. A man who was to travel with me through the Park agreed to ride him.

After this catastrophe, we proceeded through the cañon, but soon reached a point where, on account of the sidling road over a projecting spur of the mountain, it was necessary for the men to pack our plunder over the spur, and then, by ropes, hold the wagon from turning over.

As we were soon to come upon the trail where the moving Nez Percés Indians had passed through the Yellowstone National Park, I give here a short account of what we saw and heard of their operations there.

The Nez Percés Indians[23] had arrived at Henry's Lake, near the western border of Yellowstone Park, on their route to the buffalo country, and to a refuge from the whites across the Canada border. It is not out of place to relate in detail the causes of this outbreak of this tribe.

Some time about 1840, the Nez Percés, as well as the Flatheads and some other tribes of Indians on the western slope of the Continental Divide, had been converted to Christianity, through the efforts of Father de Smet, of St. Louis, and his co-laborers, and had remained Christians. The Nez Percés had a valuable reservation around the Lemhi Agency on Snake River, which soon attracted the greed of the aggressive white men. They commenced a system of encroachments, resulting first in individual killing, then the killing increased until the entire tribe turned out on the war path and all the white men in their reach were killed. The movements of the military forced them to action.

Under Chief Joseph and Chief Looking Glass

they then began that memorable march to the buffalo country on the eastern slope of the Rockies, and thence toward a refuge across the Canada boundary. A truce was declared in passing through settlements on the western slope, and in passing out of the head of the Bitter Root Valley and on to the headwaters of the Jefferson, no depredations were committed. On the Big Hole River, a tributary of the Jefferson, they were overtaken by a force of soldiers sent out from Fort Shaw, under General Gibbon. Although with an inferior force, with his enemy armed with repeating rifles, more effective in a fight in the brush than the army rifle, he made a vigorous attack on their camp at daylight. The Indians rallied, made a firm resistance, and effectually repulsed the attack. Gibbon could not renew the fight without reinforcements, and the Indians continued on their pre-arranged route. The Nez Percés were much exasperated at the killing of a number of their women, either with arms in their hands or by stray bullets.[24] After this fight, these Indians killed every white man and took all the horses that came within their reach. Up to the time of their arrival at Henry's Lake, eight or ten white men had been killed and the teams of a freight outfit gobbled up.

Chief Joseph showed much military skill in the

management of the campaign. Whenever he passed an important trail leading toward the white settlements, a scouting party was sent down that trail far enough to avoid surprise. George Herendeen had been sent out from Fort Ellis to learn the whereabouts of these Indians, and in going out to Henry's Lake, where he expected to find traces of them, he passed at the crossing of the Madison a camp of some fifteen or twenty miners from the Pony mines, acting as scouts, and with the further intention of making a dash on the camp of hostiles to secure a lot of their horses. Herendeen reached the vicinity of Henry's Lake about the time that the Indians arrived there, climbed a tree and saw enough to satisfy him that this was the hostile outfit he was in search of. Returning by the camp of miners on the Madison—about twelve miles from Henry's Lake—he warned them of the situation, and advised vigilance on their part. They expressed perfect confidence in their ability to take care of themselves, and the probability is that they at once went to sleep. Late at night a band of Joseph's scouts came down the trail, discovered the camp, and, after locating the horses, by a fusilade scattered the miners and made off with their horses, much to the miners' astonishment. They were left afoot on the wrong side of the Madison River.

In the meantime, a military force of seven or eight hundred men, cavalry and mounted infantry, had been concentrated and was following these Indians, at this time about two days' march behind them. The next heard of Joseph's band was at the Lower Geyser Basin, near which they surprised and captured a party of tourists; Mr. Carpenter, his wife and sister-in-law and four or five men from about Helena, Montana, among them Albert Oldham, whom I knew. Chief Joseph rescued the two women and a younger brother and protected them. The young bucks commenced a fusilade on the men, apparently killing Carpenter and wounding several more—among them Albert Oldham—as they took to the brush.

As it turned out, Carpenter was merely stunned by a scalp wound, and afterward revived, and he and Oldham were taken care of by Howard's men as they came up. On reaching the vicinity of the Yellowstone, Joseph's scouts surprised another party of four white men camped just above Great Falls and killed one man, the others escaping to the brush. Before fording the Yellowstone, Chief Joseph gave the two white women a pony each and started them down the trail on the west side of that stream. At the pass over the Mount Washburn range, they met a scouting party of cavalry under

Lieut. Schofield, who took charge of them and delivered them at Farrel's ranch at the mouth of Trail Creek. Mrs. Carpenter then supposed her husband had been killed.

Two of the men who escaped through the timber when fired upon at their camp just above Great Falls, had reached the Mammoth Hot Springs, where they met McCartney. One of these men from Helena induced McCartney to go back with him and try to find his friend, who on taking to the brush had cried out to those in front, "I am shot." He might be alive and wounded, he thought. McCartney acceded at once. They found his dead friend—he had been finished by the hostiles—buried him and started on their return.

The trail McCartney and companion traveled, via Tower Falls, branched from a much traveled trail, coming down the East Fork of the Yellowstone, or Lamar River, passing that stream by Baronett's Bridge. As soon as Chief Joseph's outfit reached the East Fork, he sent a strong scouting party down the trail toward the Mammoth Hot Springs, and to the lower river, thus getting behind McCartney and companion. Five miles below these springs, at the mouth of Gardner's River, was Henderson's ranch, and at that point

was a scouting party of eight or ten citizens occupying the one room-cabin, and bent on getting a lot of Indian ponies.

The Nez Percés scouting party pushed on to Mammoth Hot Springs on the 2d of September, killing one man, the companion of the man with McCartney; two others—one a colored man—escaping to the brush. They pushed on toward the Yellowstone at once. It was Sunday morning, a warm, pleasant day, and the "boys," having nothing else to do, determined to go a-fishing in the Yellowstone River, about three hundred yards away. Their horses were picketed near the cabin, their rifles and camping outfit were for the most part in the cabin. About the time the fish began to bite freely, the Indian scouting party, having made a quick reconnaissance, dashed into the camp, swooped up the horses, set fire to the cabin, and were away on the back trail in a very short time.

In the meantime, McCartney and companion, on their return, had almost reached the head of the trail, coming up a fork of Gardner's River, about three miles from the Hot Springs. McCartney told me that when about fifty yards from the point where the trail dropped into the gorge of that stream, he was met by a band of loose horses, evidently driven. As they came over the hill in sight

of McCartney, they stopped, with their ears pricked up. McCartney recognized the situation at once and prepared to act. In the meantime the Indians, noticing the action of the horses, rushed forward and opened fire on McCartney and companion, who by this time were in full run to a willow thicket about two hundred and fifty yards up the valley. They were not hit, and in a short time were under cover, firing back at the Indians. These had no time to waste, and cutting the lash rope of the pack animal, took only the horse.

It so happened that Col. Sturgis, of the Seventh Cavalry, who was then near the lower outlet of Clark's Fort Cañon, watching for the Nez Percés, had sent two scouts with dispatches for General Howard, who was following up the Nez Percés. In moving around to avoid the Indians, they had missed General Howard and were on the way to Fort Ellis, traveling the same trail by which this Indian scouting party was returning. The two parties met on Black Tail Deer Creek. With the two scouts, Goff and Leonard, was an Indian boy of about fifteen years, a protégé of Goff. The Indians discovered the approach of the white men, and had time to prepare an ambush for them. Some of them hid in the willow brush within ten feet of the trail; the others took positions on a hill,

out of sight. The whites came along unsuspicious of danger, until the party in ambush fired. The Indian boy fell from his horse, wounded, drawing his revolver as he fell. Leonard had his horse killed. He immediately cut the lash rope of the pack horse, mounted it, and he and Goff took the back track under the rapid fire of the whole outfit. Goff received a painful flesh wound in the neck. As soon as possible they plunged down a gorge leading to the Yellowstone, and were not followed further.

On the river they met a white scout, who brought them into the camp of the soldiers. The body of the Indian boy was never found, nor could any information as to his fate be obtained afterward. In my spring wagon I took Goff to Fort Ellis, and obtained these particulars from him. Afterward, while carrying a dispatch from Fort Ellis to General Howard, Leonard was ambushed and killed by these same Indians.

The foregoing digression has been made as to the movements of the Nez Percés in order to render more intelligible what follows.

After passing through the lower Yellowstone cañon, we arrived at Farrell's ranch at the mouth of Trail Creek in the forenoon of August 28. At

this point the road to Bozeman leaves the Yellowstone.

I halted here to await developments. I found the rumors heard within the last week, of the advance of the hostile Indians through the National Park, and of the killing of the tourists that fell into their hands, were mostly true, and as have been told in the retrospect before outlined.

That night Mrs. Cowan, her sister and a younger brother arrived. They were then supposed to be the only survivors of that party of about ten who had been captured near the Lower Geyser Basin.

On the night of the 29th two companies of the Second Cavalry arrived from Fort Ellis. About midnight the camp was aroused by the attempt of Indians to steal horses. They were met by a vigorous fire and were driven off. On Sept. 2, Lieut.-Col. Gilbert, of the Seventh Infantry, reinforced the other two companies, and the force moved up the river. During this time, I made agreeable acquaintance with several officers, among them Lieut. H. L. Scott, of the Second Cavalry, a friendship which has been kept bright ever since, whether as Major Scott in Cuba and the Philippines, or as Colonel Scott of the West Point Military Academy. During this time, scouts Goff and

Leonard and Mr. McCartney and companion, who were ambushed by the hostile scouts, came into the camp.

On the 6th of September, Colonel Gilbert, having failed to get in communication with Howard's command by the Yellowstone trail, came back through the second Yellowstone cañon and went up Miners Creek and over to the Madison River. Had he delayed one day longer he would have learned that General Howard was at the Yellowstone Lake, and the hostile Indians had passed on through the Park.

After this movement of troops, believing it would be some days before the situation could become settled, I determined to go back to Bozeman and await developments. I took Goff, the wounded scout, with me as far as Fort Ellis.

On the 7th of September I had the satisfaction of selling old Bones to Quartermaster Adams, for a cavalry horse, to be forwarded to General Howard. Good luck to him.

In a few days it was learned the hostile Indians had passed through the National Park, followed by Howard's forces.

As there was still time to make a hasty trip through the Park before the severe winter set in, I determined to do so. I was urged not to make

the attempt on account of the hostiles' sick or wounded that might have been left behind, and of other Indians. I recognized the risk, but since as a youngster I had served during the Mexican war as a mounted volunteer on the northwest frontier of Texas against the Comanches, and all the bad Indians of the Indian Territory and of the Kansas Territory who infested that frontier, I had some knowledge of Indian ways. Added to this, was the experience of four years' service in the war between the States. These experiences qualified me to judge of the credence to be placed in war rumors. I was anxious to make the trip.

Only one man of suitable qualities could be found willing to make the trip—Jack Bean.[25] He knew the routes through the Park; he was a good packer and mountain man, cautious, but resolute. We went light. I rode my hunting mare Kate; Jack his horse, and we packed my little red mule Dollie. I was armed with a .45-90-450 Sharpe long-range rifle, and Jack with a .44-40-200 repeater. In addition to a belt of cartridges, Bean carried around his neck a shot bag pretty full of cartridges, so that in case of being set afoot, they would be handy. When Dollie was packed there was not much visible except her ears and feet.

We left Bozeman September 11, and nooned in

the second cañon of the Yellowstone on the 13th. While there, a portion of the cavalry that accompanied Colonel Gilbert on his trip around from the head of the Madison, passed down toward Fort Ellis, having with them Cowan and Albert Oldham, who had survived the hostile Indians near the Lower Geysers.

In the afternoon we passed up the river, by the cabin of Henderson, burned by hostiles, turned up Gardiner's River and camped within three miles of Mammoth Hot Springs. As this squad of cavalry passed down, we were conscious that we had to depend entirely on our own resources for the remainder of the trip, for there was probably not another white man in the Park. A note in my diary says: "International rifle match commences to-day."

Early on the 14th we went on to the Hot Springs, and spent two or three hours viewing their beauties and wonders. We passed by the cabin, in the door of which the Helena man had been killed a few days before, after having escaped the attack on the camp above the Grand Falls.

Our trail passed up the gorge of one fork of Gardiner's River in sight of the falls of that stream. Just beyond where the trail emerged from the gorge, McCartney and his companion had met

the hostile scouts. There lay their pack outfit, which they had left behind on the 2d or 3d of September, as before narrated. Among the abandoned outfit was a miner's shovel, which these brave men had taken along to bury their friend, if dead. We camped that night on the lower Blacktail Creek.

Early on the following day we passed the place where Goff and Leonard, the two scouts, had been ambuscaded. The willow brush was all "shot up," and near the trail was the dead sorrel horse that Leonard had ridden. We examined the vicinity of this ambuscade for the brave Indian boy who, as he fell, was seen to draw his revolver. His body was not found. That vicinity was afterward thoroughly searched, but no trace of this boy could be found. His fate has not been revealed. During the day's travel there were splendid mountain views from the trail.

In the afternoon of September 15, the trail descended to the valley of the Yellowstone and passed within one mile of Baronett's Bridge,[26] across which Howard's command passed on the 5th of September in pursuit of the Nez Percés. We soon dropped into the trail taken by that command and followed it back to Tower Falls. These falls are named from the tower-like ledges of rock that

overhang the falls, which have about the appearance of the Minnehaha Falls near Minneapolis, with a single drop of about one hundred and thirty feet. Just before dark Jack missed one of the horses, and for a while there was an Indian scare, but fortunately the animal had only wandered a short distance, and was soon recovered. We were a little more sensitive to Indian scares since two scouts from General Howard's command had been met on the 13th, who reported that about one hundred Bannock scouts from Lemhi Agency had deserted Howard, taking along more horses than belonged to them. They purposed to ford the Yellowstone about ten miles above the Grand Falls, where the Nez Percés crossed, and we were warned to be on the lookout for them, as they were in a dangerous temper. Our danger would come when we should leave the Grand Falls and pass through some open country in the direction of the Lower Geyser Basin about the 17th.

It rained most of the night at Tower Falls—snowing higher up on the mountains to be crossed—but on the whole, we had a quiet night and sound sleep. When the rain ceased, about 9 o'clock A.M., September 16, we packed up and began the ascent of the Mt. Washburn range. For a few miles the trail followed an open ridge, exposing us to a

northeast blizzard, accompanied by snow. After descending into the gulch, up which the trail leads to the pass in the range, the snow became deeper, and toward the summit of the range it was eighteen or twenty inches, knee-deep, which compelled us to dismount and lead the horses, as the ascent was very hard on them. In view of future possibilities, we made every effort to save their strength. It was one of the most laborious day's work of my experience.

When near the summit, going through open pine timber, we discovered a large bear approaching us. He was moving along the side of the steep mountain to the left, about on a level, and would have passed out of safe range. I immediately dismounted and cut across as rapidly as the snow and the ascent admitted, to intercept him. He had not discovered us. When within about one hundred yards, watching my opportunity through the timber, I fired at his side. He was hit, but not mortally. As my later experience told me, those bears when hit always either roll down hill or go "on the jump." On the jump this bear came, passing about twenty yards in our front. A cartridge was ready, and against Jack's injunction "Don't shoot," I fired; yet it failed to stop him, and Jack turned loose with his repeater, I shooting rapidly with my

rifle. By the time the bear had reached the gulch he stopped, to go no further.

The excitement caused by this incident and my enthusiasm on killing my first grizzly—for I claimed the bear—dispelled at once all feelings of hardship and fatigue. The bear was a grizzly of about four hundred pounds weight, fat and with a fine pelt. We had not time to skin him, nor could the hide have been packed. After getting a few steaks, a piece of skin from over the shoulder and one of his forepaws, we continued our laborious ascent of the mountain. Still excited by this incident, the work was now in the nature of a labor of love.

Passing over the summit and down a quarter of a mile, through snow still a foot deep, there were evident fresh pony tracks in the snow on the trail, made by an animal that had passed on up the gulch to our right. Jack was called up, and as we were seriously discussing the situation, a most unearthly sound proceeded from up the gulch, which caused us to grasp our rifles and feel for cartridge belts. In a short time that unearthly blast sounded forth again, from the same direction, but this time ending with a "he-haw, he-haw." The mystery was dispelled; the voice was recognized. It was the voice of the army mule. He had discovered by

scent the presence of our outfit, and soon came trotting down the trail, the embodiment of joy and good fellowship. He turned out to be a big Missouri or Kentucky mule, sixteen hands high, that had broken down under his pack and had been turned loose by Howard's command and was endeavoring to follow on. He was a very forlorn looking animal. Our council of war decided he would soon perish in these deep snows. Jack Bean said the A. Q. M. at Fort Ellis was paying $30 for delivery of all such animals. I told him that I would help to carry him along and he could get the $30 for him; so we took him along and camped as soon as the snow became so little deep that the horses could feed in a small meadow, where camp was located.

There was an abundance of dry pine, and a rousing fire to dry us out was soon in full blast. The day had not been cold, but the rain, snow and wind made it appear so. We made fine beds of pine boughs, but I ate too much bear and did not rest well. That bear was taking post-mortem revenge on each of us.

We reached the Grand Falls of the Yellowstone and spent a part of the morning there. I have seen Niagara, Montmorency, Minnehaha, the Great Falls of the Missouri and these falls.

Niagara is pre-eminent in grandeur, but its great volume and evidence of power and force have always inspired me with a feeling of fear and dread. The falls of the Missouri are next in grandeur, while these falls are a combination of the grand and beautiful, with great volume in times of high water and a clear width of about 150 feet and 360 feet single leap. Professor Hayden, who first measured their height, gives it as 396 feet. The cañon below these falls is not less notable than the falls that give it cause. At the water level its width is about 250 feet; from above, the stream appears like a silvery thread. From the water's edge the sides of the cañon slope back at an angle of 35 degrees to 45 degrees and to a height of about 150 feet.[27] To the feeling called forth by the grandeur of these falls is added that of admiration for the beautiful and varied colorings given out by their geological formations.[28]

I have seen all the many cañons of the Continental Divide above the Union Pacific Railroad. None, however, compares in everything that makes these wonders of nature notable and grand, with the cañon of the Clark's Fork of the Yellowstone, just above the debouchment of that stream from the mountains. Its length is about eighteen miles. The lower six miles has sides sloping on the east

at about 30 degrees, the high peak on that side being about 3,000 feet above the water level, there being only sufficient room in the cañon for a trail. The upper twelve miles of the cañon is enclosed by solid walls of reddish granite almost vertical, with a width of about 1,000 feet at top. At the lower end of this part of the cañon the height of the walls is about 1,500 feet above the water level, as attested by a railway survey up the western side. In this part large masses of granite are found, some of at least 300 cubic yards capacity, whose angles are as sharp and as little worn as if disrupted from the cliffs only yesterday.

The cañon has one unusual feature; a tributary of sufficient volume to be classed as a river approaches from the south, rushing through walls of granite 100 feet wide at the top and 600 feet deep, and leaps out from the wall of the cañon at least 300 feet above water level, the upper 200 feet being a beautiful cascade. The lower 100 feet passes over broken masses of granite lying at an angle of about 40 degrees. This cañon lies out of the traveled route, and a laborious day's work is needed to ascend and descend to the level of the valley of this tributary.

We could not tarry long at the Great Falls, and took only a look at the second falls, about one-

quarter of a mile above and 115 feet clear cascade. A few miles further on we passed near the camp where McCartney had buried his friend, and thence out into the prairie,[29] extending to the mud geysers up stream, and away to the dividing ridge between the Yellowstone waters and Fire Hole waters—the head of Madison River. The depth of the snow and other circumstances determined me not to go further toward Yellowstone Lake, for the lake was no novelty, and we would see many geysers on the route chosen—to the Lower Geyser Basin, crossing the divide at the head of Alum Creek. Passing through a good deal of snow, we camped in the Alum Creek group of geysers, at the head of that creek. The most interesting sight in this group was a jet of steam passing up through waters of the creek, making a noise similar to that of the blower of a locomotive.

The night was clear and cold, freezing water to an inch depth. We slept in comfort and awoke with a dense fog enveloping us, caused by the steam of the spluttering geysers.

On September 17 we climbed the mountain to the Pass of Mountains, beyond which is the watershed of the Fire Hole River. Up to this time we had been constantly on the lookout for Indian sign, and especially on the *qui vive* for the band of

one hundred Bannock scouts reported as having deserted General Howard. On the summit we expected to strike the trail where they would probably have passed if in this part of the Park.

On the summit of the range we crossed this trail and were gratified to find no sign of anything passing after that made by Colonel Gilbert's cavalry in its effort to overtake General Howard's command.

We descended into the valley of the East Fork of Fire Hole River—now named Nez Percé Creek—by the wagon road cut out by Howard's command, and were soon out of the snow; for the valley of Fire Hole is nearly one thousand feet lower than the Yellowstone River above the falls. We passed near the scene of the massacre of a portion of the Cowan party before alluded to. We also scared up one or two wild Indian ponies, left by the hostiles, that by their speed and activity to avoid the white man, showed no evidence of wishing to be rescued, as had the lone army mule. This was an unpleasant sign. Reaching the lower Fire Hole Basin before noon, we went into camp, and devoted the remainder of the day to visiting various geysers of this wonderful formation, against the advice of Bean, who was for camping that night at the upper geysers ten miles further on.

Having seen no Indian sign in the day's travel except the ponies, we had a quiet and restful night, and by noon on the 18th we were among the Upper Geyser group and spent the remainder of the day in wonder and admiration of what was seen.

On the morning of the 19th we packed up and started on our return trip to Bozeman. After nooning at Lower Geysers, we passed on down the Fire Hole Valley. In about five miles a fresh pony track was noticed coming in from the west side and at a trot. In a short distance another pony track was observed going in the opposite direction and leaving the trail to the west. This was interpreted as meaning that a party of Indians for some cause had been left behind by the hostiles, and that they were hidden in the dense pine timber west of the trail, and had sent out scouts to watch the trail. We acted on this suggestion, and pushed on as fast as the jaded condition of our animals would admit—at a trot—passing through the upper cañon of the Madison, admirable for its facilities for an ambush as well as for its grand scenery. On emerging from this cañon, we left all trails, crossed the Madison and about sundown camped on a bluff with an outlook to our rear, having traveled this day at least thirty-five miles. The plan adopted was to go into camp, cook

supper, and after dark, replenishing the camp-fire, travel about two hours through the timber and make a dry camp.

While Bean was attending to camp duties, I went back far enough to command a view of five hundred yards to the rear, across the Madison, and with a field glass kept a good lookout for hostile signs, but detected none. In accordance with the plan, we traveled about two hours through thick pine timber and made camp in a little meadow sufficient for horse feed.

During this night's tramp we occasionally jumped small bands of antelope feeding on little patches of open ground. This was the only instance in my twenty-five years' experience among these animals when I found them using in timber. Afterward I saw a buck antelope near the Lower Geyser Basin.[30] With an early start, we breakfasted near the Madison. We nooned in the upper cañon, having a feast of trout and whitefish, the first square meal we had had since the start from Bozeman, except bacon and grizzly. Passing out of the cañon, we camped near the point where the Nez Percés had set afoot the scouting party before related. We were now out of reach of Indian scares, and in the prairie country on the Upper Madison.

Before entering the upper cañon on the 21st of September it was necessary to decide on one of two routes to Bozeman. One, and the shortest, was over a high mountain divide to the head of the West Gallatin River, and thence down that stream; the other to continue down the Madison River. I was tired of climbing mountains and wallowing through snow, and chose to go down hill, so we took the last route.

Our camp on the 21st was near a large fork of the Madison, just above its junction with that stream above the upper cañon. It was a beautiful valley, and on that day was literally full of antelope; in fact, in my entire sojourn in the Northwest, I have never seen more antelope than in the forenoon of that day.

On the 22d we met the first white face since the 13th, a Frenchman, on his way as a scout to Henry's Lake. With him Bean made a trade for the army mule we had still all safe, whereby he was to deliver the mule at Fort Ellis. After traveling down the upper valley of the Madison during the 22d and 23d, we reached Whitney's ranch across the river from the Bozeman and Virginia City road. At this camp we got plenty of milk and thirty-two eggs, which we divided equally between us. Bean ate his half, sixteen eggs, that night and the fol-

lowing morning—eight hard-boiled eggs at a sitting. No ill-effects were heard of during the night. I took my sixteen eggs in broken doses.

We here received late papers telling how the Nez Percés had out-maneuvered Colonel Sturgis of the Seventh Cavalry, and of their escape.

On the 24th we crossed the Madison, and dropped into the wagon road leading to Bozeman from Virginia City. Here some alarm was caused by our pack mule, Dollie, to which after getting into the open country, we had not paid much attention, for we had allowed her to trot on behind at will. As before remarked, when packed for the road there was nothing visible except her ears and feet under a pile of bedding with a white wagon sheet on top. Soon after getting on to the Bozeman road, we met twelve empty farm wagons that had been hired by General Howard to carry the impedimenta of his command, had been paid off and were on their way to their homes on the west side of the Rockies. We stopped the head team, passed the news and went ahead. In a short time was heard a tremendous clattering and rumpus behind. On looking back, there was Dollie trotting along, innocent and apparently careless of her surroundings. As the lead wagon was met, the horses, after being kept in the road a short time,

could not be held, but bolted to the right on the full run. The next wagon followed suit at the proper time until the entire outfit of twelve wagons was on a rampage, tearing through the fortunately open and level prairie, Dollie in the meantime keeping the center of the road. To all the witnesses to this scene it was most amusing and ludicrous, a scare caused by an innocent, patient and careless little pack mule, who had nothing whatever to do with her fearful looking makeup. That scene caused its only two witnesses to forget for a time at least all the labors and hardships and risks from hostiles and snowstorms of the past ten days.

Without occurrence of especial interest, we reached Bozeman on September 26, after an absence of fifteen days, having traveled on an average twenty miles per day.

To me, this was the most eventful trip, for its duration, of my long sojourn among the Northwestern mountains, whether be considered the unquestioned danger from hostile Indians, the scarcely slighter danger from the storms and deep snows among these mountains, or the exposure, the labor and hardships incident to traveling five days through snow from five to twenty inches deep, the only shelter from the storms at night during the trip being that afforded by a small wagon sheet.

I felt fully compensated, however, for all these risks and hardships by the privilege of viewing the cañons of the Yellowstone and the Madison, those beautiful and grand falls at Tower Creek, and at the Yellowstone, the indescribable wonders of the upper and lower geyser basins; and last, though not least, by the opportunity afforded of killing my first grizzly.

1878

After seven months spent in civilization about St. Louis and in the State of Illinois, my soul began once more to long for the wilds of the Northwest. I did not greatly strive to resist the temptation, and after a short time returned to the headwaters of the Missouri River.

It was July 17, 1878, when I left Chicago on the steamer Peerless, for the lake trip. Touching at Mackinac, Sault Ste. Marie and Houghton, I reached Duluth. I left there July 28, and in due time reached Bismarck. The next steamer to leave for the upper river was the Red Cloud, on which I took passage August 7. We reached Cow Island Rapids August 24, and just here I did not know precisely what to do. However, after a time, through the kindness of Colonel George Clendennin, I arranged to make a hunt for the fall months with an Englishman, Mr. C. Messiter, who was expected to arrive by the next steamer.

We were to start from Carroll, a landing on the south side of the river, not far above the mouth

of the Musselshell River, and to hunt in the foothills of the mountain enclosing the famous Judith Basin on the head of the Judith River, which enters the Missouri above Cow Island.[31]

At that time game was abundant here—deer, elk and buffalo, with a few antelope.[32]

Colonel Clendennin arranged for a two-horse wagon and team, saddle horses, a guide, teamster and cook, the expense to be divided between Messiter and myself. I left Cow Island on the steamer Benton, September 2, and reaching Carroll the next day, found all the outfit ready, except Messiter, some tents and other camp fixtures.

It was understood that I should take the outfit away from the river about three days' travel to the base of the Judith Mountains, make camp there and then send the team back for Messiter, the tents and other baggage.

Colonel Clendennin had arranged that I should purchase a horse belonging to a woodchopper, Pike Landusky,[33] who had a woodyard across the river from Carroll. The day after my arrival I crossed the river, and after a few miles' search found Landusky, inspected the horse, liked his looks and paid his price. I took him with me, swimming him across the river from the rear of the dugout in which I sat. He turned out to be

an excellent animal, well trained for hunting. If you respected his prejudices, he was gentle enough; if you did not, he was certain to buck you off, as more than once he did me.

Our outfit consisted of Fishel as guide; Hayden, teamster, and Derby, cook. The two-horse wagon was drawn by a pair of white horses, which I afterward purchased in the division of the outfit and used them as pack animals until they died on the Grey Bull ranch. For three days we traveled through the Bad Lands, finding only alkali water, and no wood, except greasewood. It rained almost every day. Our protection at night was an ordinary wagon sheet, stretched as a tent. We had carried from Carroll a few sticks of wood in the wagon, but were saving of our fuel. We were not very comfortable.

At the end of the second day we met a few buffalo, the leaders of a large herd that during the summer and fall had been occupying the Judith Basin, and now as it happened were moving out before a party of Crows and Chief Tendoy's[34] band of Bannock Indians from the Lemhi Agency west of the Rockies.

On the 9th of September we camped on Box Elder Creek, and here found the first fresh water met with, and a fair amount of wood. Here we

found large bands of buffalo and I killed what was needed for meat by running them on horseback. The next day made a good drive to a camp on Armell's Creek,[35] near the foot of the Judith Mountains, and here I determined to remain until Messiter should come up, sending back Hayden and the team for him if necessary.

On this day I killed two buffalo bulls for bear bait, and Fishel in different localities killed two. We killed also several antelope and deer for camp meat. On the following day, while hunting for elk, I climbed one end of the Judith Mountains[36] and had a magnificent view across the valley of the Missouri, with the Bear Paw and Little Rocky Mountains to the north and the Moccasin Mountains on the west. The Missouri is about forty miles distant and the Bear Paw and Little Rockies about seventy miles.

My hunting companion, C. Messiter, reached us on September 13. He had been sent out by Major Reed's[37] team with all his baggage.

When we arose on the morning of September 14 we found about three inches of snow on the ground, and a little later Fishel, who had been looking over the country with the field glasses, reported that the carcass of one of the buffalo had been moved. We rode out toward the carcass, and

on climbing on a bench of the mountain about a mile from the bait, discovered a large bear, which had evidently seen or smelt us, making off in the opposite direction. We followed him in the effort to get ahead of him, but he was too swift for us.

The snow was melting and the trail becoming difficult to follow. I became separated from Fishel and Messiter, and they first found the trail, and followed it until it entered a dense willow thicket on a small creek. They rode around it to see whether the bear had gone on, and when on the opposite side a huge bear rushed out and charged them fiercely. At first the horses did not wholly comprehend the situation, and the bear was close to their heels before they began to run. Fishel started back to the camp, to bring out a greyhound that Messiter had brought with him. I met him, and learning what had happened, I hurried to the scene of action and found Messiter already on a high rocky point overlooking the thicket, his horse being tied some distance further away. The clump of willows was dense and extended about a hundred yards up and down the small stream, and was fifty yards across. The stream, which was six or eight feet wide and two feet deep, meandered through the willows.

Across the thicket we held a council of war and

determined to stir the bear out. We thought that we could shoot through the brush with solid balls, and if we wounded him he might be angry enough to rush out. I rode up to within a short distance of the thicket on my side, but failed to hear any movement in it. Messiter, however, had some idea of where the bear lay, and it was determined that we should fire into that locality from each side and see if that would induce him to move about. About this time Fishel arrived with the greyhound, but no orders or persuasion could get him into the thicket.

Messiter and I now began to bombard the place where the bear was supposed to be. I was shooting a 450-grain solid ball with 90 grains of powder, and this penetrated the willow brush admirably. On the other hand, Messiter's rifle was a double-barreled Long rifle, carrying a 160-grain express bullet, with 120 grains of powder. This bullet was too light to penetrate far. We finally made his hiding place so warm that he rushed to the upper end of the thicket and charged fiercely out to Messiter's side. Each one of us got in a shot and each wounded him, when he retired to the thicket and again lay still. Messiter now left his perch, mounted his horse and came up on the opposite side of the thicket. The stream bottom

outside the willows was covered with rose bushes and buck brush about as high as the horse's belly, and this made it difficult for a horse to turn quickly.

The bear was evidently wounded. All we could hear was his breathing. We approached the edge of the willows as close as we dared, and by shooting at the sound of his breathing, kept his vicinity pretty warm. The bear watched his opportunity, crept to the edge of the thicket on my side and rushed out at me. I fired, but over-shot him, for he came on and was close to my horse's heels before he could turn. I stood not on the order of my going, but went as fast as spurs could persuade the horse. In the scrimmage I lost my hat, and before the horse could be controlled—for he was thoroughly frightened—and another shot delivered, the bear had returned to his place of concealment. Still guided by the sound of his breathing, we continued the bombardment and induced him to move. In the course of half an hour he crept along the bed of the little creek to the edge of the thicket near the point where I was stationed, and watching his opportunity charged out at me the second time. As he approached, I again made a shot in the chest with a solid ball, which dropped him in his tracks, and in such a fashion that I shouted, "I have got him!" but it was not so, for

before I could load and give him a second shot, about fifteen feet off, he was up again and rushed for me. My horse barely got out of the reach of his claws before getting headway, though as a matter of precaution he was headed outward. We had now spent more than two hours about this bear and a blinding snowstorm had begun, which made it more difficult to hear or see him as he moved about in the thicket. He was evidently badly wounded in the lungs. For some time we kept up the bombardment, but accomplished nothing since we had to aim wholly by guess. A council was held then as to whether on foot we should boldly approach him or wait until morning, when we felt sure he would be found dead. We finally concluded that discretion was the better part of valor. Had we ventured in on foot and the bear possessed a little more vitality than anticipated, we should have stood no chances against such an infuriated monster in brush so thick as to prevent the effective use of our rifles.

We now reluctantly withdrew, and reached camp, about two miles away, at half past five o'clock. We were wet from the driving snowstorm and disappointed that we had been obliged to leave the bear hide on the carcass. A hot supper revived our spirits, and after it, although the

snow still fell, we gathered about a huge camp-fire and spent the time in discussing the events of the evening fight and remarking upon the size, fierceness and great vitality of the brute. The only bear met with in subsequent years which was the equal of this one in ferocity was the one killed in 1880 near the north fork of Stinking Water. This will be mentioned in its proper place.

After a good night, which seemed more comfortable by contrast with the storm without, and a warm breakfast, we mounted our horses to go back to the bear. At the buffalo carcass it was found that a bear and two cubs had visited it, and these we purposed to look for later. At the thicket everything seemed quiet. Messiter and I gave our horses to Fishel to hold, and pushed our way cautiously in the direction of the locality where the bear had been left behind the evening before. Every precaution was taken to guard against a surprise, but when we reached the middle of the thicket and carefully pushed aside the willows, there, in a hastily improvised bed, the brute lay stiff and stark. He was one of the largest of grizzly bears, brownish in color, gradually turning grizzly or silver-tipped, and in two months more would have been called a silver-tip bear. Standing on all fours he would have been three and a half

feet high at the shoulders and seven or seven and a half from the end of his nose to the end of his tail. Standing erect on his hind feet he would have measured eight feet high with his head level. He was in good order, but not fat, and would have weighed about six hundred pounds. Though not as well furred as he would have been later in the winter, his robe was a large one. After skinning the bear, Messiter and Fishel took up the trail of the mother and cubs, while I carried the skin to camp. The trail was followed until the sun had set, and the two hunters then returned.

We remained in this camp until the 18th of September to allow the robes to dry. There were many deer about, and we killed enough for food.

Our next camp was at Warm Spring Creek, about ten miles distant in an air line, but twelve or fifteen by the route we were obliged to follow. This is a bold running stream when it leaves the mountains, but in autumn it sinks at the crossing of the Carroll and Helena roads. The camp selected was in the cañon where the creek leaves the mountains, a spot well sheltered from storms, with an abundance of dry wood and pure water. It was an ideal camping site, the more desirable as the time was approaching when snowstorms might be expected. The Judith Basin at this time was a

great locality for game, especially for the white-tail and the mule deer. There were a few bands of elk and some large bears. The Basin is shut in by mountains, except to the northeast. On the northwest it is bordered by the Highwood Mountains, while the Snowy and the Judith Mountains help to close it on the south and southeast.

During the autumn the Basin was frequented by large bands of buffalo, and the presence of these attracted to the hunting grounds friendly Indians from west of the mountains. For many years it was the practice of the Government to permit the Nez Percés, Bannocks and other friendly tribes to come through the mountains to hunt buffalo for their winter's meat. This season the Nez Percés had already come and gone, and the only Indians here were a band of Crows, and sixty-five lodges of Bannocks under Chief Tendoy, a firm and well tried friend of the whites. Tendoy and Washaki of the Shoshoni, saw far enough before them to realize that it was best for the Indians to be on terms of friendship with the whites. At this very time a band of Bannocks were on the war path, and for fear Tendoy's band might be disturbed by whites, the War Department had detailed Lieut. Jerome,[38] of the Second Cavalry, and four men, to camp with these Indians as a protection.

We remained for ten days at the camp on Warm Spring Creek without succeeding in seeing any grizzly bears. Along the stream in the foothills deer, especially white-tails, were very abundant. My notes say that in one day thirty-two white-tails were seen. They were not wild, but quick shooting was required to get one when routed out of its bed. Still, it was not difficult to keep the camp in meat, although five healthy men living an outdoor life consumed a good deal. Besides this, we supplied Tendoy and his outfit with quite a number of deer.

During this time, Messiter visited the Bannock camp, partly for the purpose of trading off one of his horses bought at Carroll, and incidentally to see Indian ways and to learn something about the hostile Bannocks, who were reported to be coming our way from the Lemhi reservation. He took with him my bear skin to be dressed by the Bannocks, who have not that fear of handling bear skins that the Crows have.[39]

The next day Messiter returned mounted on a handsome, well-built and high-headed gray horse, which he had received in exchange for a Winchester rifle and $30, in the Crow camp. I wondered why these Indians had parted with such a fine horse, but was not long in learning the reason, for the next day, when we started out on a hunt, he

bucked off his new owner, giving him a high fall, but as it happened without injury. It still remains a mystery why this horse had waited for a day to display his accomplishments, instead of doing so in the presence of his new and old masters, and before the bargain had been completed. An Indian will not keep a bucking horse long, and this horse proved to be very troublesome. Besides bucking off his rider he would constantly pull up his picket pin and be gone several days, being usually found tangled up in a thicket. He was never of any use.

The Indians often visited our camp and ate with us. Sometimes we gave them one or two deer carcasses that hung up in the camp. I was interested in their method of packing it. After removing the head, all the bones were taken out of the carcass, leaving the meat attached to the hide. Then by rolling the meat in the hide, it was easily tied behind the saddle. The long experience of the savage taught the white man a new trick. Usually the white man lashes the stiff carcass, with all its projections of legs, head and horns, on his saddle, and then perhaps walks, leading his riding horse for miles.

In hunting here where game was so abundant, I had an opportunity to try the efficacy of the express ball on these animals up to the size of the elk.

Before leaving the East that year I had determined to try the express principle with a long-range Sharps rifle, the finest made, which carried a .44-caliber ball in a shell holding 90 or 100 grains of powder, the latter being introduced by means of a reloading tube about thirty inches in length. The ammunition furnished by the Sharps factory carried a 450 and 500 grain solid ball. It is, of course, understood that the gunpowder was black powder.

British rifle makers have demonstrated the principle of the express bullet, Henry of Edinburgh having received the greatest credit on account of his exhaustive experiments on living animals. This maker was the inventor of the Henry system of cutting the rifling, which was adopted by the English government for the Martini-Henry musket.

The express system is the combination of a solid bullet with a hole of varying diameter running back from the point of the bullet about three-fourths of the ball's length. The diameter and length of the hole depends in some degree on the caliber and weight of the bullet. Such a bullet, with a heavy charge of powder behind it, giving a muzzle velocity of from 1,750 to 2,000 feet, constitutes an express bullet. A suitably designed ball with this velocity, after penetrating the skin of

the animal, bursts into many small fragments with sufficient momentum for these fragments to reach the opposite ribs of the animal and make a dozen perforations of the vitals, instead of a single large perforation, as in the case of a solid ball. The express bullet expends its momentum on the vitals in a space about equal to a circle with a six-inch diameter, whereas the solid ball makes a clean cut hole of the caliber of the bullet, which, passing wholly through the animal, expends much of its energy after it has passed out.

The bursting front end of the express bullet is supposed to be caused by the sudden compression of the air in the hole after the ball strikes the obstacle of the animal's flesh. A similar result appears to occur in shooting into water, as I have seen when it was necessary for me to kill trout in the water with one of these balls, fragments of the bullets being found in the dead fish. The sudden shock of the water close to the fish, of course, is partly responsible. At Henry's Lake a single shot turned up four trout.

That year, before I left the East, I had designed and caused to be made by the Sharps Company an express bullet of 275 grains weight with an eighth inch diameter hole in the point, with 90 or 95 grains of powder. This gave a proportion

of powder to bullet of one to three, which was supposed to give the required velocity. A lighter bullet of that caliber would be so short as to lose its accuracy.

From September 13 to October 1, I made such experiments as I could with deer, killing no more than we could use. On white-tail and black-tail deer I made many experiments. When hit back of the shoulder, the animal's lungs and heart—according to the location of the bullet's entrance—would be perforated apparently by at least twenty fragments, most of which we found on the opposite side of the chest. Usually the butt of the bullet—considerably flattened out—was found next the skin on the other side. If the animal was hit further back over the paunch, the intestines would be cut in many places, and the butt of the bullet would be found under the skin on the opposite side, the fragments usually remaining in the visceral cavity. If hit in either of these ways, the animal would stagger off and be found within twenty to fifty yards. They seldom fell in their tracks. Hit in other parts of the body, the shock appeared to be much greater than from a solid bullet, and as a rule, quite as disabling. I had no opportunity on this trip of testing this light bullet on elk, but I believe that if this animal was hit

over the lungs, heart or smaller intestines, it would succumb within a short distance.

The trajectory of this bullet is very flat. It shows a rise, as carefully tested, of seven inches in two hundred yards. It is accurate, for as often tested, careful shooting would place ten consecutive bullets within a twelve-inch bullseye. It was sighted for two hundred yards. For all distances within that range it was necessary to aim low, and for distances up to two hundred and fifty yards the mark was usually reached for a deer by aiming at the top of the back.

A few years subsequent to this, my hunting cartridges were kindly tested at the Frankford Arsenal by Major Michaelis, of the Ordnance Department. I was then using the long range .45 caliber rifle made by the Sharps Rifle Company, but by putting a double patch around the .44 caliber 275 grain express bullet, it shot as accurately from the .45 caliber rifle as from the .44. A few cartridges were sent to Major Michaelis with the 275 grain express ball and an equal number of .45 caliber express bullets of my own design weighing 340 grains. Into all the shells 110 grains of powder were loaded, and the result as determined by the Government chronograph was that the .45 caliber bullet attained a muzzle velocity of 1,830 feet a

second, while the 275 grain bullet had a muzzle velocity of 1,910 feet a second.

My conclusion was that the lighter express bullet was not the best for game larger than deer. Later experience has convinced me that the 340 grain express ball is sufficient for all the large game of the continent. For great beasts like the buffalo a heavy solid bullet is the thing, but during the season of 1881, after I had become familiar with the habits of the grizzly bear, I killed, using an express bullet with 110 grains of black powder, twenty-three of those bears, of which seventeen required only a single shot.

On September 29 we moved camp westerly around the foothills of the mountains to the head of Cotton Wood Creek, about twelve miles above the only Indian trading post in the Judith Basin, owned by Reed & Bowles. This post is at present the site of the flourishing town of Lewiston. Major Reed had been the Government agent of the Assinaboines and the Gros Ventres of the Prairie, with headquarters at Fort Belknap on Milk River in northern Montana. He possessed manly qualities and was perfectly fearless in the presence of danger. As an evidence of this trait it is related that at one of the gatherings of the Indians one of them shot Reed's dog without provocation.

Without hesitation Reed took up his rifle and killed the Indian. Of course, this made quite a disturbance, but they were prudent enough not to tackle Reed. The dispute was finally compromised by his paying the Indian's relatives a price in ponies or trade goods. The religion of the Indians that inhabited the Southern States demanded an "eye for an eye," and "a death for a death." The nearest relatives were religiously bound to shed the blood of the slayer of their family, and with the nomad tribes of the Northwest this revenge has become a matter of trade.[40]

Bowles, the partner of Reed, had, just before our coming into the neighborhood, distinguished himself by a quarrel with the Indians. His wife was a woman from the Piegan Indians, whose agency was at Badger Creek,[41] in northwest Montana. A few months before this date, a party of these people, some of whom were relatives of Bowles' wife, came into the Judith Basin on a hunting and proposed horse-stealing expedition. After loitering about the trading office for a time, they disappeared, and with them Bowles' woman. Suspecting that she had been persuaded to go off by her relatives, Bowles mounted a good horse, and by riding all night, overtook the party just before they packed up for the next day's march.

The result of the meeting was that Bowles killed two of the men, scattered the balance and brought his wife back with him, and when we reached the neighborhood she was living quietly at home.

These instances are suggestive of acts of some of the pioneers of those days. Major Reed stood high as a fearless man, and the fact that he was swift to punish, even by death, an Indian that had deprived him of his property did not injure his standing in the community as a good citizen, and gave the Indians a wholesome respect for him.

Our camp at the head of Cottonwood Creek, established October 1, was delightful. Grizzly bears were fairly abundant, about as much so as anywhere on the frontier that I have been. White-tailed deer were extremely abundant. It was not uncommon for different members of the party to report having seen in one day twenty, thirty, forty or even fifty deer. Some of these reports may have been more or less exaggerated. In the immediate vicinity there was a large band of elk, then in the midst of the rutting season. The flesh of the bulls was useless, except as bear bait.[42]

The numerous willow thickets which extended for miles down the stream from the foothills made splendid cover for the white-tailed deer and grizzly bears. Higher up on the hills the alternate gulches

and intervening ridges, more or less timbered, are the resort of the black-tails. I have never found grizzly bears abundant in any portion of Montana or Wyoming to compare with any other game, notwithstanding the fact that the females bring forth from two to three cubs each year.[43] Two cubs are nearer the rule than the exception. Not more than ten of these animals were seen by the members of the party during the month spent at or near this camp, and some of these were seen more than once. The numerous willow thickets made it almost impossible to kill them in daylight. When wounded they sought refuge in a neighboring thicket, and if followed, could always elude the hunter's approach. In this neighborhood four of these bears were killed, two by Messiter and two by me.

One I killed October 4 in the open and in daylight. He was discovered on an open flat near Cottonwood Creek, about two hundred yards distant and feeding leisurely toward me, but in a quartering direction. Knowing that these bears cannot see distinctly unless looking up, and since he was too far off to risk a shot, I determined to boldly approach him in the open. Watching until his head was down feeding, I walked toward him as rapidly and noiselessly as I could until he raised his head, when I crouched down, to make another

approach when he began feeding. I finally came to within forty or fifty yards of him without his discovering me, and watching when his side was exposed, delivered a deadly shot, which knocked him over. I fired two more shots to make sure of him. He was a large bear, his skin measuring, when tacked down, seven feet seven and a half inches.

Messiter also killed a good-sized bear when alone and in daylight. The two other bears were killed at a bait established near the camp, one at 9 o'clock and the other at 12 o'clock at night. Other elk baits were looked after at night, but somehow the bears always learned of our presence in time to retire. We had more or less stormy weather, blizzards of rain and then snow, which sometimes lasted for twelve hours. In the three or four inches of snow which sometimes lay on the ground, we followed the bear tracks, but to no purpose. From the Bannock camp we heard, October 4, of a fight in the valley of the Yellowstone,[44], which General Miles had had with a hostile band of Bannocks. He was said to have killed eight or ten, and to have dispersed the remainder. He felt sure that these people would now make for Tendoy's band, and joining them, would become respectable Indians. Of

course, we saw nothing of them, but we did see moccasin tracks and pony tracks in the snow passing down the stream with our camp, and this warned us to be cautious. About the middle of October one of the men sent with supplies and mail matter to the Forks of the Musselshell[45] reported that while he was there Indians had come down and stolen about twenty head of horses, his own among them.

After a stay of a month at the Cottonwood camp we became more or less hopeless of success, and left the Forks of the Musselshell, intending to spend the remainder of the hunting season on the eastern slope of the Crazy Woman Mountain,[46] between the Musselshell and the Yellowstone Rivers.[47]

Messiter's horse again bucked him off and gave him a hard fall, but did not injure him. We camped at Ross' Fork of the Judith River, alongside of a large freight outfit loaded with rifles and ammunition for Walter Cooper at Bozeman. The next night we went on and camped in Hopley's Hole, twelve miles beyond the Judith Gap on the way to the Forks of the Musselshell. The freight outfit of six or seven teams camped at the springs near the Gap.

Just after bedtime a band of Indians made a

dash for the freighters' horses. By good luck the teamsters heard the noise in time, jumped out of their blankets, and by a rapid fusillade drove the Indians off before any horses were taken. Fortunately our insignificant bunch of horses was no temptation to these discriminating savages.[48]

We reached the Forks of the Musselshell on November 2, and camped in Gordon's cabin, two miles above the post-office. Here we stayed for several days reading our accumulated mail and newspapers, and on the 6th left camp for a hunt between this point and the Yellowstone, on the heads of Sweetgrass and Big Timber Creeks.

On November 8 we camped at Porcupine Butte, and on the 9th on the Big Timber. As the wagon and outfit passed on the road at the foot of the mountains, Messiter and I scouted along the foothills above, looking out for game. We saw white-tails and antelope in considerable numbers, but no sign of bears. We reached Big Timber Creek again, eight or nine miles above the point our camp was supposed to be located. Meantime it had clouded up, and before long began to snow, with a raw northwest wind. We moved down toward our camp, hoping to reach it before dark, but night fell before any signs of camp could be seen, and with the darkness the wind and the snow in-

creased. We were without overcoats, and our buckskin clothing had already become wet from the melting snow. We traveled for an hour and a half after dark, and still saw no camp-fire, and our occasional stops to see if signal guns might be heard were fruitless. We had just about determined to seek some sheltered place where we might build a fire and spend the night as best we could, when we heard from behind us three distinct discharges of firearms. The signals were answered and camp was finally reached by riding about two miles back. We had passed it within three-quarters of a mile, but since it was behind an intervening hill, we had failed to hear the signal guns. Around a cheerful camp-fire we were soon warm and dry, but it did not require a hot supper to make us happy at having reached a haven where we were sheltered from storms of winter, and having avoided a night of great discomfort exposed to the blizzard then raging. How comfortable and luxurious that tent appeared, with the storm howling without! No wonder the tired sportsmen slept without dreams.

The following morning was bright and pleasant and the sun was warm and melted the snow. We spent the 10th, 11th and 12th of November reconnoitering the mountains, but found the prospect for

game so disappointing that Messiter and I determined not to hunt.

November 13 we moved camp to the Yellowstone. Messiter determined to take the stage next morning for Bismarck, and I to go into winter quarters at Bozeman. We had no difficulty in agreeing on the disposition of the outfit, and I took the three men and all the animals to Bozeman, where the party was to break up. Messiter left on the Bozeman and Bismarck stage, and I started with the men for Bozeman, covering the distance in three days, and reached there on the 16th. The 17th of November the party was disbanded.

1879

I left Bozeman in the early spring, intending to make a bear hunt in the Crazy Woman Mountains. Nelson Catlin was my packer. We had three pack animals. We were provided with a 9 x 9 wall tent with a small box-shaped sheet-iron stove to go inside the tent. The day was bright and cheerful, and we passed through Bridger's Cañon, up Bridger's Creek, toward the Bridger Pass. William Martin, whom we met and who had just come over the pass, reported it impassable, unless the snow should be sufficiently hard to bear up the pack animals. I determined to make an early start, so as to pass over the deep snowdrift before the sun should thaw the crust. We did not get started until 8 o'clock, and were soon in trouble with the snow. Two pack animals went down at the first ravine that we crossed and we were obliged to unpack them. Finally we determined not to attempt any other snowdrifts, but to ascend the mountains on the east of the pass, which appeared free from snow, and to try to go down some bare ridge on to Brackett Creek, a fork of Shield's River.

These bare mountains were about a thousand feet above the pass, and were steep, making the climb difficult for the pack animals as well as for ourselves. It was not until 12 o'clock that we reached the summit. About half way up, a pack on one of the horses became loose, and while we tried to tighten it, the horse lost his footing and rolled down the mountainside, over and over, finally stopping just on the edge of a snow bank. Had he gone a little further and got on the snow bank, he would no doubt have rolled down a steeper part of the mountain four or five hundred feet, and been killed. As it was, he did not afterward appear at all hurt or sore. We were on top of the mountain where the aneroid showed an elevation of 7,300 feet.

At 3 o'clock we started down, but found it impossible to reach Brackett Creek, as we had hoped, because of the depth of the snow. We therefore came down to a point on the pass about two miles from where we had left it, trusting to fortune to get out on to Brackett Creek. There we camped on the headwaters of Brackett Creek, but in a place where there was little grass for the animals, but plenty of wood and water. Here the barometer showed 5,900 feet, which is about the level of Bridger Pass. The exertions of the day were very

fatiguing to animals and men. I walked most of the way up the mountain, leading my saddle animal, and all the way down, going ahead of my mare and breaking a road through deep snow near the foot of the mountain.

Next morning Catlin went out early, to learn, if possible, something about the road, and when he returned reported that it would be very difficult to get out of the pass on to Brackett Creek. Finally, however, after careful choice of a way, we reached the stream without trouble and were now on dry ground and out of the snow. We camped on a side hill only a little further on, where there was wood and water and good shelter from storms. I had intended to hunt in the evening, but when the time came found that the horses had started away from camp down into the valley, and it took some time to overtake and bring them back. An all-day hunt on April 5 showed no game, and only a little sign of deer, but the following day I took a walk in the evening and discovered a band of twenty-five or thirty mountain sheep, which I endeavored to approach. After going a long way round, we approached them within three hundred yards, but could not get nearer without being seen or winded. I fired the express ball at them at that distance, but apparently without result. Catlin,

who followed the sheep as they hurried up the mountain, fired two more shots and knocked down an animal, but failed to secure it.

This was Sunday, and the anniversary of the Battle of Shiloh, in 1862. The following morning I set out to look for mountain sheep, and going up a small ridge just below the camp saw a small band of sheep on the mountain, which, however, saw us at the same time and made off. The climb was a long one, but it was not so steep but we could ride our horses to the top, which the aneroid showed to be 1,000 feet higher than the camp. No sheep were seen on the top of the mountain, but by working along and looking down into the next ravine, we discovered another band of sheep feeding about a mile away. To get around the head of the gulch to the ridge they were feeding on proved impossible because of snowdrifts, and we were therefore obliged to make a long circuit, descending to a level lower than that of the camp. The wind was baffling and uncertain, and I was somewhat afraid that they might scent us and go off. As we climbed the backbone of a ridge we came upon the fresh tracks of a bear going down.

After a hard climb we got near the sheep, but meanwhile they had fled down the ridge and we came upon them unexpectedly. They scampered

off without giving us a good chance, but stopped at 175 or 200 yards distant. We both fired hastily, and probably overshot; at all events, we touched nothing. They ran down the mountain into a ravine to the left and then up on the other side. I suggested to Catlin, who had better and younger legs than I, to go ahead up the ridge and try to head them off. He did so, but after an hour returned unsuccessful. He reported having stalked a grizzly, which had run down the same ravine with the sheep. He had gone into a pine forest on the other side of the ravine, where it was futile to follow.

After a weary tramp without success, we reached camp about 4:30 P. M., tired and hungry and with only a mountain grouse to show for the day's hard work. On the way we passed the carcasses of two dead steers, untouched by bears; good evidence that as yet these animals had not come down into the valley. At camp we found the barometer had fallen three and a half tenths, promising stormy weather. It had registered in that camp from 23.75 to 24.15. Previous to this afternoon it had been quite steady at from 24.10 to 24.15.

Most of the night was stormy; the wind blew hard, with many showers of rain. In the morning we could see snow on the mountains to the

north and to the south. It was cool and some ice had formed in the water buckets. The wind was blowing hard and cold, and I determined not to move camp this day. About 1 o'clock I set out to look for sheep on a high tableland that we had not hunted hitherto. Just before ascending the mountain, I saw what I supposed to be a band of sheep just on the path that I had picked out to follow to the summit. Instead of going up further, I kept on down the valley until out of their sight, and then turned up and climbed the mountain until I was above them, and by a long and weary tramp approached them. I at length discovered them lying down below me, about a hundred and fifty yards distant on the mountainside, but horizontally only about a hundred and twenty yards. I shot at a ewe and broke her hindleg, and the others not knowing the direction whence the danger came, ran directly up the mountain toward me. As I was preparing to use the double triggers, the rifle went off accidentally, and the ball passed over the sheep, so I lost a fine chance to kill another. I then hurried down the mountain at breakneck speed, and shot the wounded animal, which proved to be an antelope, as I had discovered when the band ran toward me. I took a ham and went to the gulch, where we had previously found the sheep and

the bear, and there awaited Catlin's return. When he came he reported a band of antelope and one of elk, but too far off to be reached that day.

The next day we moved down to Martin & Myer's camp, at the forks of Twenty-five Yard Creek, on Shield's River, and about twenty miles from the mouth of the river where it enters the Yellowstone River. The next day Catlin went down for grain for the horses, and I reconnoitered as far as the foot of the Crazy Mountains to select a permanent camp. These foothills were understood to be one of the best points in Montana for bear. They are not high and are quite broken. There are good camping places.

Catlin returned the following day, and on April 12 we started for the foot of the Crazy Mountains to establish a camp. I told Catlin the direction in which I wished to go, and riding off to one side before long found first one elk and then four others, at which I fired a few shots; but the distance was great, and I did no damage. Not long afterward I met Catlin coming back in search of something that had dropped off the pack. He had seen something go over the ridge which he supposed was a mounted Indian. I suggested that the object was an antelope or an elk, but he was somewhat alarmed. After a circuit of three-

fourths of a mile, we cautiously approached the place where the elk had been. Three antelope stood officiously near that point and seemed to dare us to fire at them, but we were in search of larger game.

Some of the elk had moved down the ridge and they had scattered out, but we discovered it in time not to alarm them, and crept up to within a hundred and fifty yards. Each selecting his animal, we fired. Mine fell, but Catlin overshot, and the noise started them running. We ran down the mountain, and each got another shot at a hundred and fifty yards, mine again falling by a shot through the shoulder, and Catlin missing. Looking across the valley of a small creek, a band of at least fifty elk that our shots had alarmed streamed out of the valley, and a mile further on, over near the base of the mountain, was a still larger band of seventy or eighty. These joined the others, and all went off. I had never before seen so many elk, and those I saw would ordinarily be estimated as three or four hundred, but my estimate is based on a count of portions of the herd.

On examining our game, we found that both were cows, and neither fat. They were shot with 275-grain hollow bullets, with a hole one-sixteenth of an inch in diameter. The first one was shot

through the back part of the paunch, but I could not find the ball. When the shot struck her she dropped, rose again and soon fell and was dead when we reached her. The second was shot through both shoulders, the ball lodging against the skin on the opposite side, but going through the ribs and shoulders, the ball had flown to pieces and the butt, much marked, went through the opposite shoulder. This ball was found and weighed 250 grains. Both elk were dressed, for we intended to make bear bait of portions of them.

Before this we had found the sign of a large bear. It was after sundown when we returned to camp, and we were then obliged to pitch the tent and get the supper. On our way out to investigate the supposed Indian mystery I killed a big antelope at one hundred and fifty yards with a 275-grain hollow ball, dropping him in his tracks shot through the shoulders high up. Catlin was now satisfied that the supposed horsemen had been elk. It is usually well to investigate all such supposed mysteries, and, if possible, to satisfy the persons who discover them, and thus to stop the constant alarms likely to follow.[49]

Two days later we moved camp about two miles further south and higher up the mountain, on the little stream where wood and water were abundant

and convenient and the camp well sheltered from the wind. Above camp we established a bear bait, leaving there two carcasses of elk, killed not long before. We saw some deer and elk, and reached camp just in time to escape a storm which continued during the night, the rain finally turning into snow when the wind shifted to the northwest. The ground was white with snow next morning. Catlin reported that two white-tail deer were feeding within a hundred yards of the tent when he got up. He called me, asking me to get them. I slipped a cartridge into the rifle, stepped out into the snow, and kneeling down, pulled the trigger. In justice to myself I may say that the deer was facing me, and to my disappointment, instead of dropping in his tracks, he raised his tail, and with his companion bounded away out of sight. After breakfast I hunted around the mountains to the south, and discovered two bull elk lying on a hillside out of reach of the wind, which was blowing hard from the northwest. After some maneuvering I crept up to what I supposed was 150 yards. I fired at one of them lying down, and the two sprang up. Another shot at the same animal standing broadside failed to bring it down, and then the elk trotted over the hill into a ravine. I followed rapidly, thinking they must have stopped, and sure

enough, on reaching the brow of the little hill, there the two were. One stood with his tail toward me, and the other broadside on, but with his rump behind the head of the other. Pulling the trigger at the one standing broadside on, the other one fell, having been hit a raking shot in the loins and being broken down. I went up to him and killed him with two shots, one with the 275, and the other with the 360-grain ball. The first two shots had dropped successively and had broken the leg in two places, the lower part of the thigh and below the knee. The shot in the thigh had caused a bad wound. A trial shot with the 360-grain ball made a hole on entering the cavity of three inches diameter. The 275-grain ball would have killed him as quickly, as it badly shattered the breast bone and reached the heart. I took out the tenderloins and returned to camp for dinner. The wind was very cold, and I remained in camp during the evening and loaded about eighty rifle shells. The bull elk killed the day before had only recently dropped his horns, as had his companion. Three young bulls that I had seen lately several times had not dropped their horns.[50] I concluded from this that April 15 was about the time when they lose them.

The following day I hunted around the base of

the mountains to the north to look for game and for another camp, for the signs called for it. In the snow I discovered one large bear track within a mile and a half from camp. This was the third bear track we had seen, and I was becoming discouraged, as there was no other sign of their being here. Our elk baits still remained untouched.

I hunted around the mountain for six or seven miles and passed over a country well adapted to game, especially white-tail deer, but all I saw was one band of black-tails and one of antelope. The large band of elk seemed to have left the country I wished to hunt in; still I felt that we might find them still further south, on the south side of the mountain, where the grass was greener. On the north and northeast sides of the mountain the snow drifts were much deeper and showed the lack of sun. The wind blew so hard that it was tiresome to ride against it.

After dinner the next day we went south around the foot of the mountain for four miles. We saw two white-tail deer lying on a hillside sunning themselves, and Catlin, crawling up to within a hundred yards of them, fired. Much to his disgust, he missed, and the deer bounded away over the next hill with flags flying. Further along, we saw elk; first three lying high up on the mountain

on our left, probably the young bulls seen several times, and then climbing up high on the mountain to approach them, I discovered two large bands of elk feeding; no doubt the ones seen a few days before. They were about three miles to the south and on the bench near Rock Creek. I regretted that we had not moved the day before, so that we might get around them and start them up the valley, so as to have them near us when we moved camp further up the mountains to the north.

Going about a mile further around the mountain, we discovered a fine old ram sunning himself about half way to the top. We passed him without attracting his attention, got under cover, and then ascended the mountain by way of a ravine in order to get the wind on him and to approach him from behind rising ground. About the time I dismounted and prepared to stalk him, I discovered the remainder of the band, six or eight sheep, a little higher up, but in full view of us. They had seen us, and got up and ran off. I hurried toward the old ram, in the hope that he would not discover this movement of the others, but getting to within two hundred yards of him, found he also was starting up the mountain. I gave the band a shot at three hundred yards, but it fell short, and then I fired at the ram, but without effect.

It was now 3 o'clock, and we returned toward camp. Some time before we reached it, we discovered a band of elk on the trail, but apparently working back toward camp, as if something had alarmed them. Following, we found that they had followed our trail toward camp, and we supposed that they would stop and begin to feed near camp; but before long we saw the band rapidly climbing the mountains, something had greatly frightened them—perhaps a bear. At all events, no bear had disturbed our bait, and it seemed that bears must be scarce here.

Early on this day I had an odd experience with a buck antelope. I first shot at him from 250 yards, and supposing that I had hit him, we went to see. Then I discovered him 225 or 250 yards away, facing us. I took deliberate aim for 250 yards, making allowance for the wind that was blowing. When the ball reached him, the hair flew from his back, and he fell, apparently dead. Soon he began to kick and flop and pitch about like a rabbit, and it became apparent that he was merely grazed, the ball probably having plowed along his backbone. The more he kicked the livelier he became, until he got to his feet, and at every jump he made, he grew better, until at length he trotted and galloped off as if nothing had hap-

pened, and was soon snorting at me from a neighboring hill, but out of rifle shot.

On the next day, while we were hunting, looking for elk and mountain sheep, we discovered with the glasses what we supposed was a band of elk feeding on a steep mountainside. As we attempted to approach them, a buck antelope with beautiful horns got up within fifty yards of us on a hillside and stamped defiance at us while he erected his mane. We approached within thirty yards before he would trot off. Had we not been after larger game, the antelope would not have been so bold. We left him staring at us with broadside exposed a hundred yards off. How did he know we were after larger game and did not wish to bother with him? This often happens when one has plenty of meat, but once get out of meat, and then see how scarce and wild game can become.

When we were within five hundreds yards of the game already spoken of, creeping from behind a little ridge, we discovered that instead of being elk, these were mountain sheep. Their light color ought to have told us this before, but we took them for a band of elk seen yesterday.

The sheep were in full view, and there was no way of approaching them. We could only wait for them to feed along the mountainside, and dis-

appear over a small bench. When they had done this, after an hour's wait, we slipped down as quickly as possible into a deep ravine. Many of the sheep were still in sight, but they failed to detect us. A little later the wind was blowing hard, and I feared lest our scent should be taken up to them, as it swept up the mountain. Nevertheless we kept on. When we reached the part of the bench where we had seen some, all had vanished, and I concluded that they had winded us and had run up the mountain. However, there was one spot where they might be lying down. We approached the intervening rise, but not with great caution, until Catlin caught sight of a horn and signalled me. I rose and shot at a large ram at the other side of the rise, but only fifty yards away. There was a tuft of grass between us, but I supposed I had certainly killed him. The sheep vanished so quickly that Catlin did not get a shot, and the whole band circled around to our right, crossing the path by which we had come up the mountain. During this time each one of us gave them a shot, and then ran rapidly back to shoot again. The band came into view about two hundred yards off, and we bored three shots apiece into them, wounding two at least and a three-year-old ram, which could not follow the band. Meantime the

sheep had descended the gulch and were slowly climbing the mountain on the other side. We now started back to pick up the killed and wounded, thinking there must be some after fifteen or twenty shots fired. Going back to near the point where we started them, I observed an old ram peering at me over a ledge of rock. He was about a hundred yards up the mountain and showed only his head and neck. I fired at him, and supposed that I dropped him, so rapidly did his head disappear. I climbed higher toward him, and again he showed his whole body, but not long enough for a shot. I called to Catlin, who was on the other side of this ledge of rock to look out, as I was sure the ram would almost run over him. Soon I heard three shots, and presently saw Catlin triumphantly pointing at the ram and declaring that he had broken his legs. At last Catlin killed the ram, and the shots found in his body showed that he was the one that I had shot at first. He could have escaped in a dozen different directions, but declined to do so; insisting on following his band, he ran the gauntlet of our rifles. The ram was the largest that I had yet seen. Its measurements were as follows: Length of body, from tip of nose to root of tail, 60 inches; height at shoulder, 42 inches; circumference of chest, 52 inches; length

of horn on curve, 28½ inches; circumference at base, 16 inches; circumference at half its length, 15 inches; spread of horns from tip to tip, 21 inches. The horns made a few inches more than one turn, and we estimated that he would weigh nearly 400 pounds.

On the way down the hill to get the horses, Catlin pointed out a groundhog sitting at the root of a tree about thirty yards distant. Being desirous to see if he resembled the eastern animal, I shot him. Going to pick him up, I discovered just below me the other wounded ram. He was a three-year-old, with a perfect set of horns, not battered, as in the old one.

The next day Catlin went to Martin & Myer's ranch and a storm threatened all day. The next day it was raining, turning to snow at night, and on the morning of April 21, ten or twelve inches of snow lay on the ground. It was soft and melting, and ceased about midday. The following day we set out to look for signs along the base of the mountains, and found two bear trails coming down. One of them led to an elk bait, which I determined to watch for the bear, since his tracks showed him to be a large one. Unfortunately, the bait was in the open prairie, without any cover near it. If I watched on the ground near enough

to the bait to see to shoot after night, the bear would smell me, while, if I remained out of gunshot, I could not creep up to him because of the noise made by the frozen snow, so that night after dinner I rode over to the bait, picketing old Jim, the pack horse, at a little distance and going to a point within a hundred yards of the bait, where I could command a view of all approaches. I watched until dark, but saw no sign of him, and returned to camp.

Two days later we moved camp to one of the springs of Elk Creek, about two miles from the base of the mountains. The spot should be a good one for game, for it was a park in the mountain about five miles in circumference. On the way there we saw seven or eight bull elk, one of which I tried to shoot at, but the rifle was unloaded. I saw some large bands of antelope, and one band of white-tail deer.

While riding next day, I witnessed the extraordinary sight of a sickle-billed curlew chasing a large eagle. Other summer birds were beginning to appear—larks, flickers, bluebirds and others. For a week past I had heard the sandhill cranes and geese passing over. Although there was little or no snow on the prairie, still in the narrow valleys, which were shadowed by the hills, the

southern foothills were covered with snow and with deep drifts, some of which were frozen hard enough to bear a horse. This was on the north fork of Shield's River. Across the river from our camp was a beautiful park, watered by clear streams, with many willow and quaking aspen thickets along their course, which once must have been alive with white-tailed deer. Now not one was to be seen, nor were there any elk in sight. All of them seemed to have followed the large bands further south.[51]

On April 27, while going out to look after the horses, I saw a band of fifteen or twenty elk feeding on the hillside of Elk Creek. After watching them for an hour through the glasses—for they were two and a half or three miles away—they lay down. To reach them I made a circuit of perhaps four miles to get to windward of them, and then climbing the hill, got close to them. However, I did not find them where I had expected, and working along down the hill, disturbed a band of black-tail deer, which ran off in the direction of the elk and started them. They went off slowly, and running to the top of a hill, I got a shot at them, just before they plunged down the side of the mountain. One of them reared, and acted as if fatally wounded, but managed to go off with the

band. They disappeared in a creek bottom a mile off, and as I did not see them come out of it, I went to my mare, and making another circuit, climbed the mountain, and when I looked over, discovered three bands on the opposite side of the valley, some lying down and some feeding. As it was late, I determined to return to camp and perhaps try for them to-morrow. On my way back I killed three antelope.

About 9 o'clock the next morning, I set out to find the elk, and after a time discovered what I supposed to be four black-tails a long way off on the mountain bordering Elk Creek on the south. I climbed the mountain to the windward and looked, but seeing nothing across the valley, crept on down after the black-tails. When I had come close to them, I found they were not black-tails, but elk, but near them was the band of ten or twelve black-tails that I had seen a few days before. I was obliged to creep just above and even among the deer to get a shot at the elk, which lay just beyond. One of them, lying down broadside about 125 yards distant, was shot at. I made allowance for a strong wind, but the light ball drifted and struck it in the neck, killing it at once. I then turned my attention to the band of black-tails about 200 yards down the mountain, but failed to get one.

Among the elk that I saw on the 27th was a young bull that had not yet dropped his horns. He seemed to be three or four years old. The following day I spent in camp, experimenting with cartridges, to discover the effect, if any, of a lubricant wad melting and being mixed with the powder, but I could reach no definite conclusion. The next day, while out looking about, I rode up on a ridge and saw three deer approaching, feeding. I dismounted, and although my mare was in plain sight, they came up within a hundred yards of the horse before seeing her. This shows that deer are not always as vigilant and watchful as they have the credit of being.[52]

On May 1, Catlin got back, and the day after, August Gottschalk rode up. He had come from his ranch near Bozeman to hunt with me, and unable to find my camp, had camped about a mile and a half to the south. After dinner we went out to look the land over, and to the south saw one band of elk and some other game. We spent some time trying to get within good rifle shot, but at last they winded us and went off to the higher benches. We might have had a long shot at them, but the wind was blowing fiercely, and we wished to make a sure kill, for my friend wanted to take some meat home with him. The next morning it

was storming, with about two inches of snow on the ground, but before long it cleared up and I went over to Gottschalk's camp to make a day's hunt to the south. We found no bear, but saw one fresh track near our own camp. From one of the high points, we had a fine view of the country below, and so discovered two hundred elk feeding in different bands. Determining to make a circuit of about five miles in order to get south of the elk and drive them toward our camp, we covered a wide sweep of country, which we examined for bear or bear sign, but without encouragement. There were many white-tail deer and antelope. At length we approached the southernmost band of elk under good cover, and got within a hundred and fifty yards of them. There were about fifty of them, and they were lying down. Gottschalk fired before I was ready, and all my shots were at the band while it was running. After firing three shots apiece, we discovered that our horses had stampeded as well as the elk, and before getting back to the elk, they had all disappeared. Several were going off wounded, however, and Gottschalk followed them. I heard a shot at one of the wounded and ran around a butte, hoping to meet a band going south. Those that I saw after were going down the stream, but about one mile away I saw a

band of a hundred and twenty-five coming toward me, evidently intending to go south around the point of the mountain. This we wished to prevent. When the elk discovered me, they turned back and bent their course to the northwest.

Going toward camp, I found a small band of elk, and got within easy rifle shot and shot a young bull with a 102-386 cartridge. He was badly wounded, being shot through the thigh. I then fired at another elk a hundred and fifty yards off and wounded it, and away went the balance to the northwest. The bull was badly wounded, and soon fell, and I went after the wounded one which fell in the brush near our own camp. When I went back to the bull, he was dead. Just then my friend hove in sight, having killed the elk he was after by a second shot. He reported that one of my 386-grain balls with a hole in the point $\frac{7}{64}$ of an inch in diameter, which struck the elk just over the hip to the right of the backbone, passed under the ribs and out of the hollow, and had been stopped by the skin in front. He cut out the ball, which was mushroomed. I do not think that it lost any weight in splintering, and it evidently had not sufficient velocity to give the best results. This ball was a 406-grain bullet, and the hole was three-fourths of an inch deep. After hanging up the

hindquarters, we returned to camp, reaching it just after sundown. Elk, antelope and white-tail deer were exceedingly abundant. Talking over the subject of bears with Gottschalk, he expressed the opinion that they had not yet left their winter quarters, and as he was a good hunter, that opinion should be worth something.

We remained here for some days longer, and Gottschalk went home May 5. I killed what game was needed for food, making some interesting experiments as to the efficiency of the hollow ball. On one occasion when looking for elk, we got to a point from which we should have seen them, and found that they had mysteriously disappeared. Just then two white-tail deer came toward us along a trail, and approached us very closely. We could not do anything for fear of alarming the elk, knowing that if the deer ran off the elk would see them and start too. The leading deer, a doe, came up within twenty yards of us and could not make us out until she had got around to windward, when she raised her tail and ran swiftly back. This soon showed us where the elk were in a coulée very near us, for they started off. We ran rapidly up the ridge to meet them at the point where we supposed they would cross, but they were too smart for us, and went off in an opposite

direction. The bull elk at this time were just growing their horns.

A few days later, I went out with Catlin and had some amusement in watching him while he went off after a band of elk. They smelled him before he got anywhere near them, and went off; but he was not aware of that and spent a long time crawling about and peeping up to try and find the game.

At last, at 5 o'clock, I started for camp, but before I had mounted my horse my eye caught a dark moving object on the south side of the mountain. It was not a deer, nor an elk, and when I used the glasses it was evident that it was a grizzly, and presently I made out a second. I watched for a few moments to see what they were likely to do, and saw that they were moving down toward the elk baits that had been laid out when we camped out on this creek several weeks ago. I mounted old Jim and set out down the mountain. Not daring to go directly down, lest I should be seen, I passed out of their sight and down a valley and through a cañon. When I passed out of it, I discovered the two bears on the opposite side of a deep gorge, and about five hundred yards off. To keep from being seen, I was obliged to go straight down to the creek bed, for which they headed, and

I wanted to get there before they did. I had the wind of them, and went as fast and with as little noise as possible to a point opposite to where I thought they should be intercepted, and there I tied my horse, climbed up the opposite side of the steep bench and cautiously looked around. I soon saw that they were ahead of me, and as there was much brush on the stream below, I began to despair of getting a shot. Going on a hundred yards further, heard a noise which I thought might be made by a bear just over a little rise of ground. Creeping up to the brow of this rise and peering over, I saw a good-sized grizzly coming up the hill toward me. I dropped down on the ground, determined to fire at the first good opportunity. Looking down the hill, I saw behind the first bear another smaller one, and noticed that the old one now and then sat up and called to the cub to hurry it along. Something down the creek had evidently alarmed her. I determined to await her approach where I was, but felt that it was necessary to make a sure shot, as there is always fight in an old bear when her young are in danger. At the moment, I could not sight at her from my position, for she was behind a stump. Presently she started up the hill again in front of me, occasionally nipping off buds as she walked, but always concealed by some ob-

stacle. Seeing a large pine tree just between us, I determined to get a little closer, and noiselessly and rapidly gained the cover of a tree without attracting the old one's attention. The cub, however, stopped, and would not come on. This tree was within forty yards of the old one, and as I peered out ready to shoot, I discovered the bear sitting up and looking back after her cub. I brought my rifle to my shoulder in an instant, took deliberate aim at her chest and pulled. Just as I did so, however, the bear turned her right side slightly toward me. She fell with the ball near or through her heart. Quickly loading, I turned my attention to the cub, which was now sitting up trying to find out what had happened. I pulled on him, the ball going through the shoulders high up and breaking the backbone. Two grizzlies in two shots I thought was pretty good luck. I loaded again with a light ball in case any fresh shooting should be required, but both animals soon lay still. I then went back to my horse, determined to dress the animals and return to-morrow with Catlin to skin them. On going to my horse, however, I was glad to see Catlin not far off coming toward me.

When he came up, he said that he had discovered the bears and determined to be sure as to what they were, had crept up within a hundred yards of

them and immediately came back to tell me, so that I could kill them. I thanked him, but put a somewhat different construction on his motives, as he had several times declared that he "had never lost any bears."

The next morning, while we were skinning the bears, a ruffed grouse began to drum, and this suggested the question so often asked as to how the sound was produced.

After we had finished the work of skinning the bears, a rain squall came up and we went for shelter to some pine trees near some brush, when presently the grouse sounded his drum on a dead pine log about thirty yards distant and partially screened by underbrush. Choosing as good a position as possible for observing him, I watched him carefully through the field glasses. He went through the operation of drumming five or six times, and there need be no mistake as to how the sound is made.[53] After a few preliminaries, he seemed to grow larger, as if he had inflated his lungs, and then standing on tiptoe, like the rooster when crowing, he struck his wings violently over the breast, producing the sound which is often heard half a mile. Each spell of drumming consisted of six or eight blows, delivered slowly at first and more rapidly toward the end. When the

drumming was the more rapid, the crop seemed to be swelled out, and the bird's contortions were very odd. I was sure that the wings did not touch the log, and that the tips of the wings were not used in the drumming. During this drumming, his tail was spread like that of a turkey gobbler. I walked up to within ten feet of him, examined him closely and satisfied myself that he was the same bird I had so often seen in Minnesota, and had known as ruffed grouse.

Later in the day Catlin killed three elk with an 80-228-grain hollow ball. Each was killed by a single shot at about a hundred yards. The ball went through the first animal near the heart, two splinters of lead being found in the heart. A second was shot through the heart, and another yearling bull was shot through the back of the heart and lungs. The experiment with the hollow ball and American powder with the proportion of only 1 to 3.6, was very satisfactory.

The bear cub killed the night before had a full set of teeth and could not have been a spring cub. He must have been a year old.[54]

May 16 we went out to look about. The day was blustery, windy and disagreeable. We saw an old bear track, but nothing more, but approached three elk, which we did not disturb because they proved

to be cows. During the day we saw forty-four black- and white-tail deer, most of them very tame, fifteen elk and forty or fifty antelope. Watching the black-tail bucks through the glasses, I saw that the horns had grown to the length of six or seven inches. The animals were all very unsuspicious.

On the evening of May 17, I went back four miles to the mountain used as a lookout, when I killed the two bears. From here I counted eighty-four elk and a few deer. A bear had disturbed one of the elk carcasses left by Catlin a few days before, and I watched by the bait until nearly 7 o'clock. I was just about starting for camp, when what appeared to be a good-sized black bear appeared on the high bench in the rear, and a little to the northeast. It appeared to be going around the base of the mountains, and was a mile and a half distant. We mounted at once and rode rapidly, trying to overtake him, for there was not much daylight left. Following the direction he took, about half a mile beyond the point where we had last seen him, we got a glimpse of him beyond a deep gulch, and just before he entered some pine timber. As he had the wind of us, if we followed on his trail, we crossed the gulch, descended the ridge and entered the little patch of timber on the other side, in the hope that if he came through we

might get a shot at him. Soon, however, it became so dark that we could see nothing and returned to camp. On the way in I shot an elk for meat, but we did not find him until the next day. The day after, Catlin climbed the mountains behind where the bear was seen, and discovered that the animal, probably frightened at my shot at the elk, had gone back up the mountain. Catlin also reported having seen three mountain goats or ibex.[55]

On the following day we made an exploring expedition up the north fork of Shield's River, where we saw some elk and deer, but it is a cold country with narrow valleys, walled in by rock and precipitous mountains on the north. These mountains seemed a good sheep country, and we saw a band pretty low down. We shot at them, but without effect. It was windy and squally, with occasional showers of snow or rain, but by getting in the timber we escaped a wetting. On the return, when we were within three miles of camp, a yearling bear jumped out of a gulch on the left and ran ahead of us. I dismounted and fired at him with a 102-350 cartridge at 140 yards, and hit him through and about the head, the ball passing through the point of the shoulder, shattering it. No pieces of the ball could be found. He ran 115 yards and was dead when we reached him.

The next evening, while riding along the hillside, I saw a black-tail buck, which, like the proverbial ostrich, hid his head behind a small bush and thought that he was concealed, even though his body was in full view. I rode up within ten steps of him before he ran. He was quite thin.

The next day, which was Saturday, I set out to look for fat elk or bear, as meat was getting low. I killed two young yearling elk, one a heifer without a calf, and the other a bull with a spike four inches long. These two animals were killed, one at 110 yards and the other at 130 yards, with 102-550 cartridges. They fell in their tracks. The weather seemed to be getting constantly warmer, and the elk were following up the grass, which was growing green on the mountainside. The elk seemed to be separating into smaller bands. The elk and the antelope would soon be dropping young. From this time on, no bear sign was seen, and though there was plenty of game, it was useless to kill any of it unless we had some use for it. Therefore, on May 26 I had a settlement with Catlin and returned to Bozeman on the 30th.

Experience had taught me that the only way to travel through the mountains was with a pack

BULL TRAIN AT FORT BENTON.

MULE TRAIN AT FORT BENTON.

train, and on the 4th of July, I left Bozeman for a trip to the Yellowstone Park, intending to go up the valley of the West Gallatin to its head and to return thence by whatever route should prove most feasible. I had with me as packer and cook, Joseph Cochran.

On the way in we camped for about a week on the head of the West Gallatin, in order to secure a supply of elk meat, which should last us for at least a month. We expected to dry the meat, which must be cut into thin strips and flakes and exposed to the air or sun, a smoke being kept up beneath it to keep the flies off. In order to look out a route from the head of this stream it was necessary to ascend one of the mountain peaks to the east. From there it seemed evident that we must go down into the valley of the Madison River above the upper cañon, and thence up one of its tributaries, the Firehole, to the Upper and Lower Geyser Basins. As I was going down from my point of lookout, I followed a small creek with an occasional patch of willows at its forks, and from one of these a cow elk rose, followed by her calf. The cow, not at all alarmed, stopped within fifty yards of me, and the calf, overtaking her, began to pull at its mother's udder. As I was wondering at their lack of suspicion, another cow rose

up, and then its calf, and joined the first cow, and the second calf began to nurse. I stood and watched them for fifteen minutes, and then rode away, leaving them standing there quietly nourishing their young. I never witnessed such a sight before or since.

From about the 20th of July to the 25th of August I took great pleasure in visiting and inspecting all the wonders of nature in this wonderful land. My mental attitude was very different from my first trip through the Park, in the autumn of 1877. Then, when not startled by the strangeness or the beauty of these wonders, one's thoughts were occupied with forebodings of the next snowstorm which might seriously delay the march, or else by looking for hostile Indian signs, which were almost everywhere to be seen. Now the climate was delightful. There was plenty of food, no known dangers and the frequent encounter of pleasant companions on a mission similar to my own.

After a month of delightful sojourning here I determined to leave the Park and end the season by a hunt for bear on Clark's Fork, to go out to the plains to the south of the Yellowstone River and finally to return to winter quarters in Bozeman. I passed out of the Park by way of the east

fork of the Yellowstone, now known as Lamar River, to Soda Butte Creek, and thence up that stream to the divide between the east fork of Clark's Fork of the Yellowstone. At Soda Butte Lake we camped for a while, getting some splendid trout, and here I killed the first bear seen on the trip. Later we stopped at Lake Abundance, an immense spring of unknown depth, which forms the headwaters of Shell Creek, a tributary of the Lamar River. Within five hundred yards of this lake is the head of the Rosebud River, which runs north to the Yellowstone. My second bear was killed near this divide.

On the 25th of August, we crossed over the divide to the Clark's Fork watershed, and for a few days camped at a famous salt lake[56] used by the elk and deer. Game here was very abundant, especially elk in the pine timber country to the north of this lick.

Our next camp was at the mouth of Crandall Creek, at the head of the noted Clark's Fork Cañon. This cañon is about twelve miles in length, with vertical walls of red granite for the entire distance. As the river goes on during the twelve miles of its course through this cañon, the latter grows deeper and deeper, until at its end the walls are 1,500 feet in height. Below the end

of the red granite formation, the granite continues for six miles through various geological strata, and on the western slope there is room enough for a trail. Near the lower end of the red granite cañon the south fork,[57] a considerable stream—at times a river—leaps from this deep, narrow cañon through the vertical walls of the main cañon and falls almost as a single cascade two hundred feet to the river below. At a distance, it has the appearance of an immense water-spout from a water tank. In many respects this is a most remarkable cañon. I have already described it.

From here we explored the high mountain plateau on each side of Bear Tooth Mountain, but finding no bear sign, went on down to Dead Indian Creek, and after camping there, followed the trail, which leaves the valley of Clark's Fork, because it is impossible to go down through the cañon. The climb over Dead Indian Hill is a rise of two thousand feet by aneroid barometer, and descending to Clark's Fork, the fall is twenty-five hundred feet. No bears were seen on Clark's Fork, but at Heart Mountain two were killed, but without adventure. As autumn was approaching, it seemed best to come down from the mountains, cross the river and gradually work around the foothills of the mountain south of the Yellowstone Valley to the

head of Boulder River, where grizzly bears were supposed to occur. This route lay through the Crow Indian reservation, but as permission to pass over it was always asked of the agent of the Crows, I was always treated well, and not annoyed by beggars. When Indians visited the camp they were always kindly received, and if it was near meal time they were always fed with the best the camp afforded.

We made camp on the east fork of Boulder River about the 28th of September, and remained there until the 19th of November. Elk were fairly abundant, but deer were not seen. At this time I had in my employ a man named Milligan, who was married to a Crow woman and lived on a ranch at the mouth of Deer Creek. He cared for the horses. I promised that if he would go to the ranch for a wagon, enough elk could be killed for his winter meat, and about that time a band of elk wandered to the vicinity of the camp and seven were killed and their meat well taken care of for him. At this camp only two bears were killed—without adventure. As the Crow Indians did not hunt grizzly bears, it was hoped that they would be found abundant on the headwaters of the Boulder.

On the 9th of November camp was moved about

five miles to the Boulder River, at a point about a mile and a half above the natural bridge. Here there was a pool in the river made by a beaver dam, which afforded us a sufficiency of trout. Milligan and Cochran had their traps set, and in a few days caught some beaver, the tails of which were saved for beaver tail soup. While here, Wm. Judd, the Chief Clerk of the Crow Indian Agency, visited me and remained to the end of the hunt. He was fond of hunting and fishing, and especially expert in casting the fly. On any favorable day he would cast into an air-hole of the frozen river and haul out trout on the ice. I had never heard of trout being caught with an artificial fly in the depth of winter. Our camp was well protected. We had a sheltered place for the tent, an abundance of elk and black-tail deer, trout whenever desired, and beaver tail for soup. Up to this time the weather had been clear and bracing, nor had there been any snowstorms, such as usually occur in September and the early part of October.

We had no success with bears from this camp, although one came almost every night, climbed the tree on which Milligan's fifteen elk hams were hung, carried one away to a neighboring thicket and feasted on it at his leisure. Although I watched for him almost every night until a late

hour, he appeared to have knowledge of it, and did not come until after I had gone to bed. Thinking that his den might be in a nearby thicket, Milligan and I followed him there, but he kept out of sight. We found only the bones of the elk, which he had picked clean. His depredations were at last stopped by hanging the remaining pieces of elk meat on a cottonwood sapling, thought to be too small for him to climb. The next morning we had evidence that he had tried to climb it, and after finding that he could not do so, he began to gnaw at the sapling at about the height of his head when standing. This was the only bear of whose presence we learned.

About December 1, the weather changed and became stormy, but it was not until the 16th that the storms began in earnest. Then it snowed almost continuously, and the temperature dropped almost to zero, and possibly still lower, for my thermometer did not register below that mark. By December 21, the snow was sixteen to eighteen inches deep at camp. Not relishing the idea of being snowed in, we packed up and started down the Boulder River to the Yellowstone, instead of attempting to cross over on the snow drifts directly to Benson's Landing.

So much snow was encountered that day that we

made scarcely ten miles, and it grew constantly colder. We camped in the snow, as the tents could not be pitched because the ground was frozen and we had no iron pins. During the night, the temperature fell below zero, but toward morning it moderated, with a light snow, and all day long we traveled in the face of the north wind, the cold growing more severe toward night. After traveling about fifteen miles, we came to the camp of Walters,[58] a white man with an Indian wife. He gave us permission to take shelter for the night in his cabin, which was about sixteen feet square. Walters' family consisted of four, and by the time my party of four big men with their baggage was stowed away inside, there was not much standing room; still the night was spent comfortably.

The following morning was clear, sunshiny and cold. Mr. Judd, being an old-timer, and realizing the impossibility of getting to his home, decided to start at once and make the cabin of another white man that night. I determined to rest one day, as the last two days had been pretty rough. Milligan had two hounds, and we put them through some willow thickets on the stream above the cabin. He arranged the stands, and with his dogs drove the thicket and we got two deer. The sun was shining brightly, but it was very cold. About ten

inches of snow lay on the ground. At midnight the wind began to blow, seeming to increase in velocity until about daylight, when it was moving down stream with hurricane force. The air was so full of snow that it was barely possible to see the wood-pile, about thirty yards from the door. Neither man nor beast could face such a storm, and we postponed our departure. It was difficult to keep warm within the cabin, as the wind appeared to blow through its sides, though it was a well-chinked log house. The large tarpaulin floor of my tent was stretched on the windward side of the cabin behind the kitchen stove to act as a wind-break. Each one then put on all his clothing, fur coat, leggings, buffalo moccasins, as if traveling. Then, by hovering close to the stove, which was kept filled, we managed to keep comfortable during the day.

All that day and all the next, the wind continued to blow with unabated fury. The next morning, December 25, Christmas, the wind had somewhat abated, and by noon of the day following, the storm had spent its force, and we could venture out and recognize the sun, as the air was no longer filled with fine snow. The afternoon Milligan went in search of our horses and found them in the timber nearby, apparently having done well.

With Cochran I crossed the Yellowstone on the ice to the stage station[59] on the north side, in order to get the news of the outside world. On our way we passed through the river bottom, covered with timber and willow brush, and there stumbled on a pitiable sight. At the beginning of the blizzard all the cattle from the distant ranches had sought shelter in the river bottoms. Without food and with only the shelter afforded by the timber in such a blizzard, and with the temperature so low, it is a wonder that any of these cattle survived. As it was, there was hardly a head of them that was not frozen. All were so poor and shrunken that it looked impossible for them to survive until spring. At the stage station we learned that some stages were got through from Fort Keogh, and one was expected on the next day. It was afterward ascertained that during the blizzard the temperature at Bozeman and at the Crow Agency registered 40 degrees below zero. With such temperature and with a fifty-mile-an-hour blizzard, it is difficult to see how either man or beast exposed to it could survive.

We made preparations to leave for Bozeman early on the 27th, expecting to make old Crow Agency by night. The roads had been swept clean of snow, exposing many icy places, but the tem-

perature was perfectly mild. About midday my riding mare Kate slipped on the ice, falling with her full weight on my right foot, clothed only in a buffalo moccasin. This would have been a serious matter at any time, but was especially so in the midst of winter, when seventy-five miles from a surgeon or even from a shelter from its storms. The mare was not injured, and as there was no alternative, I rode her for the rest of the day to the old agency, conscious that my foot was becoming very much inflamed. As soon as I reached there the foot was placed in a tub of snow water, and everything done to keep down the inflammation. The keeper of the old agency was a Mohawk Indian named Milo. He had drifted West and married a Crow woman and settled down at the original Crow Agency, determined to enter it as a homestead as soon as the Indian title had been extinguished. His wife was a deaf mute, the only one of the red race that I have ever heard of.[60] She was evidently quick-witted, an accomplished sign talker, and the most skillful pantomimist I have ever seen.

My accident necessitated a change of plan. It was arranged that Milligan should take back with him to his ranch three of my horses and keep them for the winter. All my camp baggage was to be

left in Milligan's care until sent for. The following day Milo was to take me in his wagon to Benson's Landing, where I might intercept the mail wagon bound for Bozeman, about twenty-six miles distant. Cochran was to take one pack animal with my personal baggage and my riding mare Kate to Bozeman.

Milo suggested to me that he might not be able to fulfill his contract. There was a possibility that the ice in the river would not be strong enough to bear his team. At present the stream was full of running ice, except at still places or pools, where there was little current. He had heard that the crossing at Benson was frozen, for yesterday he pointed out that the ice might be moving tomorrow, in which case there was no possible way of getting me across the river. The fact that thirty miles below, opposite Walters' ranch, the ice was strong enough to bear single persons, was no indication of the condition of things at Benson's. Moreover, the recent cold snap had not lasted long enough to freeze the upper reaches of the stream.

Although during the night my foot had become more inflamed, we made an early start with Milo and his team for the ford near Benson's Landing, nine miles above. Several buffalo robes were taken to provide against a cold ride to Bozeman that

night. The route we followed several times passed near the river, and the view was not reassuring, for the stream seemed filled with a mass of running ice in large blocks. When we came to the ford, however, the ice was still, but careful examination had to be made before trusting the team on it. Fortunately three men were camped on the opposite side, who at once responded to our inquiries, and with their axes commenced sounding the ice for a proper route for the wagon.

Milo and I were silent but interested spectators. The men reported that they had found a zigzag route, which they thought safe under the circumstances. In the mean time I had told Milo of the importance of crossing. Unless we made the trip to-day it might be a week or more before we could do so. My foot—if none of the bones were broken —might by that time be in such a condition as to prevent traveling. I preferred to risk the ice. I asked Milo if he was willing to risk the passage, and his answer came promptly, "Yes."

"Then go ahead," was the response.

I at once threw off all robes, being determined if the team went through the ice, to make a fight for life. If they did so, I knew that the current would be strong enough to take them under the ice, and I was determined to make an effort to

scramble on top as they passed under. One of our friends from the other side now went ahead of the horses, following the zigzag route selected, and our relief was great when we had passed over the deepest part of the stream—at this crossing nearly one hundred yards wide—but greater still when solid ground was reached, and congratulations were offered and received.

These men were of the old times then to be found on the Northwestern Indian frontier. They were the pioneers and forerunners of western civilization. Though improvident, they were brave, big-hearted men, willing to divide the last crust of bread or the last dollar with a fellow-man in distress. When we reached the stage station[61] the bob-sled stage was expected, and not long afterward it hove in sight. As it drew up, I hobbled to the window on a crutch, and saw a single passenger, who also was leaning on a crutch. It turned out that he was U. S. Marshal Botkin, of Montana Territory, returning on official business from Fort Keogh or Miles City. It seemed to me that it took good nerve for a man on crutches to attempt such a trip in winter.

When we started for Bozeman, I found the marshal an intelligent, agreeable man, who had been a good deal about Washington, and was ac-

quainted with a good many of the public men of the day, of whom I knew many from the South. After a warm supper at the stage station,[62] about nightfall we set out for the summit of the divide, where the only trouble was likely to be found. When we reached it, the wind was blowing fiercely, filling the air with fine snow and preventing vision for more than fifty or sixty feet. Near this point the road crossed a ravine, then a quarter of a mile wide. Passing teams had packed down the snow in this ravine, but at present the loose snow was drifting constantly, and the road-bed—of packed snow—now seemed twelve or fifteen feet above the ground. It was a good road, so long as one kept the beaten track, but if the driver failed to do so, the wagon, striking the soft snow, would turn over and with the horses be buried in the soft drift beneath. Along the road, pine saplings had been planted as a guide for all passersby in winter. The drifting and blowing snow had obliterated every sign of the beaten road.

When we reached this point, the driver was much discouraged by the drifting of the snow. It was bright moonlight, yet the air was so full of fine snow that it was very difficult to see what was before one. However, the driver went some distance along the roadway to see whether he could

be guided by the pine saplings. Presently he returned and reported that he could not see from one sapling to the next one, and that we would be sure to get into trouble if we attempted to go ahead. If team or wagon got off the beaten track, the wagon would turn over, carry the team and outfit with it, and horses, passengers and all would be tangled up together in eight or ten feet of loose snow. Even should no one be hurt, it might be 10 o'clock the next day before help could reach us. To the two passengers who had only two legs between them, this was not a pleasant prospect. The temperature was 15 degrees below zero, and I was inclined to side with the driver and return to the road ranch. Fortunately, I had not committed myself before the marshal spoke up and said, "Well, now, Colonel Pickett, I have been fighting snow for the last week, and am a little used to it. I am in favor of going ahead." That speech stiffened my backbone and the driver's.

We discussed the situation in full, and it was finally determined that the driver should walk ahead, and after finding the first sapling should return slowly, marking the crest of the road-bed with his feet. Then he should drive along the road to the first sapling, repeat his foot journey to the next sapling, and so until the ravine had been

crossed. The plan was carried out, and when we reached the main road, a load was lifted from my spirits second only to the relief felt after safely crossing the ice of the Yellowstone the day before.

From this point to Bozeman it was only twelve miles. The road was downhill, well broken through the snow, and a bright moon was shining. Our spirits had rebounded after the perplexities of the crossing, and with a talk over incidents of our past lives, and some amusing stories by Marshal Botkin of Washington life and the nation's great men, the time passed rapidly until 10 o'clock at night, when we reached Bozeman.

My friend, Dr. Monroe, examined my leg, told me that he thought no bones were broken, and I went to bed with a contented mind. For a month thereafter, however, this crushed foot kept me on crutches, yet the comforts of shelter from the weather, and companionship of friends, caused me almost to forget the pain and inconvenience.

I have always felt under obligations to Marshal Botkin for the nerve displayed that stormy night. Had he faltered about the crossing, our arrival at Bozeman and shelter would have been delayed a day. Marshal Botkin was afterward elected Lieutenant-Governor of the State of Montana, and for some time was acting Governor.

In a long and somewhat eventful life, it has been my fate to pass through many scenes that required nerve and determination. Some of these were the battles of Shiloh, Perryville, Murfreesboro (including the battle of January 2, of Breckenridge's division), Missionary Ridge, and the battles of the Atlanta Campaign, yet I have always felt that the crossing of the Yellowstone on that cold December day, all things considered, required the possession of a higher degree of nerve and determination than any crisis of my life.

1880

After about a month in the Yellowstone National Park during the summer and early fall of 1880, I determined to cross the mountains to the east of the Yellowstone Lake, drop down on the waters of the famous Stinking River, and spend the remainder of the season hunting on that stream and its tributaries until driven out by the snow. Then I intended passing to the plains below and following the foothills of the mountain ranges bordering the Yellowstone River on the south, to return to my old winter quarters at Bozeman. George Herendeen[63] was with me as guide, mentor and friend, and a Swedish boy as cook and camp keeper.

Our first camp half way up the mountainside was in a park bordering Brimstone Lake. On the south side sputtered a small group of geysers that were constantly steaming and fuming. From the southeast a small mountain stream of pure cold water entered the park. It was ten or twelve feet across and a foot deep. Near where it entered the

lake, there boiled up in the middle of the stream a clear cold spring, whose waters rose a foot above the surrounding level. This water was very palatable and cold, yet not more than a hundred feet distant the hot springs were steaming and discharging. On the north side of the lake another small mountain stream entered it, and near this our tents were placed. Brimstone Lake was very shallow, with bubbles of gas constantly coming up through the water.

For a day or two we camped here, looking for Jones' Pass through the mountain range we wished to cross. One morning, just before September 30, we had been kept housed in the tent by a cold, drizzling rain, but about 9 o'clock, the rain having ceased, I stepped outside and looked around. Just in front of the tent and about a hundred and fifty yards toward the lake, was a grizzly bear aimlessly rooting in the ground. I stepped into the tent, secured my rifle and cartridge belt and passed out. My dog Nip, judging from my actions that something was going to happen, followed at heel, though I did not notice him. Meantime, the bear had moved to the left and was a little further off. I concluded from its careless actions in full view of the tent that it was not much afraid, and rapidly approached it. When within about 125 yards

I dropped on one knee and prepared to fire. In the meantime, it had paid no attention to me. When it exposed its side, I fired. As if expecting it, and without looking around, the bear came charging directly toward me, with long jumps. The dog met it about half way, dashed at it, when it turned and again exposed its side. I fired again. At the crack of the rifle the bear left the dog and dashed straight toward me. The dog was unable to stop the charge, but when within thirty feet I delivered another shot, which stopped her, for it proved to be a female.

In the meantime, George Herendeen had come up carrying the first weapon he could pick up, a 10-gauge shotgun loaded with 4 drams of powder and 9 buckshot. He gave her the *coup de grace,* shooting at the shoulder, but the buckshot flattened on the bone. She weighed only about 350 pounds, but had what is called by furriers a silk-robe skin. Each of the shots hit her, and any one of them would have been fatal in a short time.

The actions of this bear were so aggressive that we were curious to learn how she had entered this basin, and as it had rained enough to make the ground soft, this was not difficult. An examination of her tracks in the mud showed that she had come down the stream on the north side of the

park, had passed near the tent and out into the open prairie near the lake, where I had first seen her. Her organs of scent must have told her that people were in the tent. She had evidently come into the camp seeking trouble, and at my first shot realized whence it came, and did not look up to see.

From this camp, we continued to search for Jones' Pass over the range. Captain Jones, when he went through the pass which bears his name, had as guides some Shoshoni Indians, and we felt certain that this must be the best pass. At length we determined that a certain pass must be Jones', and arranged to move the next day. As we were out of meat, I had killed a fat black-tail, brought it near the trail we should probably follow, and hung it up in a tree out of reach of wolves and foxes. The next day when we passed near this tree, my dog rushed ahead and forced some animal to tree. Supposing it a black bear, I made a careful approach in order to get a sure shot. I could see the animal indistinctly, but before getting near enough to shoot it, it had sprung to the ground, drove off the dog, and away they went. On examining the surroundings, I saw that the animal had climbed the tree, cutting the leather strap by which the deer hung, descended, and was at work

on the carcass when the dog drove him up the tree. I saw that the work was that of a skunk bear, or wolverine. This was the third time during my travels in the mountains that I had seen this animal in life. It is the largest of the weasel family, and seems to have the head and face of the common skunk, and the body of the bear. It sits up on its hindfeet like a bear or a badger, and is remarkable for its long claws. In a fight, it is said to be the "boss" of the mountains. The dog, however, easily makes it take a tree. In this case Nip soon announced that it was again treed, but as I approached, it jumped to the ground, and away the two went until the dog overtook it. I soon gave up the pursuit.

We crossed the range on what was supposed to be Jones' Pass. It was not that, but the mistake was not discovered until we were too far down the mountain to turn back. At last we came to a ledge of rock in the trail which required a jump down of three feet, and as our pack animals were loaded with two and a half months' supply of provisions, it required all Herendeen's experience as a mountain man to get the loaded horses below the ledge. At last, however, it was done without unpacking, and a little later, coming to a small meadow with water, we made camp. The reason

for doing so was that the woods appeared to be full of elk, whistling.

After dinner Herendeen sallied out for meat, and soon returned with the news that he had killed a fat bull within a quarter of a mile of camp. We brought in the hams and loins, and were now well provided with fresh meat.

The next day was October 1, and the camp was moved about fourteen miles to the main tributary of the Stinking River, the north fork lying at this camp about 3,500 feet below the mountain passes over which we had just come. We had a beautiful camp. Nearby was a small meadow, and meandering through it a clear brook full of small trout four or five inches in length, which were delicious when cooked whole. The main stream was abundantly supplied with larger trout. The weather was clear and bracing, and for about a week we stayed here, enjoying every hour. Near the head of this stream the mountain peaks rise about 4,000 feet above the valley, and from our camp down to the debouchment of a stream into the plain, the valley is an almost continuous cañon for about fifty miles. The vertical cliffs which wall in the valley are composed of a red conglomerate of volcanic origin that at some early geological period must have been forced up through the earth's crust, and

in after ages, by the action of water or air, so eroded that they have assumed grand and sometimes fantastical forms. I saw several cathedrals with tall needle-shaped spires. There was a solid block of city buildings, a bank and safe vault. Looking up on the cliff opposite, there was outlined against the sky an old woman, a grandmother, comfortably seated in a colossal armchair. Before her stood a boy, her grandson, his hands in his pockets—fumbling probably with his marbles—the grandmother gently chiding him for some prank, and he humbly taking the reproof. Such fantasies were developed in my imagination at the time, and I still recall them. Among the thickets was a tall needle-shaped spire a hundred feet high, ten feet across at its base, with a great round ball, a boulder, balanced on this pinnacle.

We remained about a week at this camp, and I killed a bear. Here occurred an incident illustrating a phase of the human mind that most observant people have noticed. This is, that when from any cause one person is intently thinking of someone in front of him and at the same time gazing at him, the object of his thoughts will involuntarily turn his head and look straight at the gazer. The same psychological fact obtains between man and some of the lower animals.

Finding that a bear had been seen near a portion of elk killed three miles above camp, I determined to watch for him one evening, and was on hand early. My reconnaissance of the afternoon had led me to believe that the bear slept in a thicket across the river. I chose my position so that I could overlook this thicket as well as command a view of a probable approach from other directions. The elk bait lay at the foot of a bench about ten or fifteen feet high, and by approaching it from above a shot could be delivered at twenty-five or thirty yards. The wind was blowing gently down stream, the proper direction.

About sundown I saw occasionally a dark spot appear on the edge of the thicket, and after two or three examinations of the surroundings, the bear stepped out confidently and crossed the river toward the bait. From time to time I peeped over the bench, and at length found that he had reached it. I was wearing a pair of Indian moccasins, for when careful work in approaching a bear was needed, the hob-nailed leather hunting shoes I usually wore were taken off. Gradually approaching the rim of the bench, I found the bear busy, and looking through my field glasses, saw that he was lying lengthwise on the elk, his head away from me. The position was uncertain for a fatal

shot. I crept up to within twenty or twenty-five yards with the rifle ready. Suddenly, without warning, he sprang to the left, made one or two jumps and stopped broadside to me, looking directly at me. This sudden action disconcerted me and I fired so hastily as to miss him, perhaps a fortunate occurrence, for had he been hit, even fatally, he would have rushed directly at me. Still, as I was on the uphill side, I think he could have been managed.

For an instant after the report of the rifle he stopped, and then bounded off to the crossing of the river about a hundred and fifty yards distant. As he ran, he was given a good shot behind the short ribs, which rolled him over, but he jumped up and soon reached the timber, closely followed by Nip. The dog brought him to bay, and I followed at my best pace. When I reached the river the bear had crossed, followed by the dog, which again brought him to bay in the open timber. By this time, however, it had become so dark in this cañon that the bear could not be distinguished so that I could shoot at him. Close to the river on that side was an abrupt bluff, and as the actions of the bear and dog indicated that they were moving to the left, I determined to cross the stream below and endeavor to intercept them.

I walked rapidly down the bank under cover of the willow brush, waded the knee-deep river at a rapid, fifty yards across, and hurried to the bluff, but the bear was ahead of me. He was evidently in a bad humor, and eager to punish the dog, which kept not closer than twenty yards from him. Soon the bear turned up the valley of the stream, and I followed as fast as the rocks would permit. It soon became too dark to see distinctly, and the barking of the dog indicated that the bear was traveling faster than the hunter, so I reluctantly whistled off the dog, recrossed the river, regained my shoes, and with some difficulty found Kate, who nickered cheerfully at my approach, mounted and reached camp after 9 o'clock, a discouraged, disappointed individual. A warm supper, dry clothing, warm blankets and a sound sleep greatly refreshed me, so that the next morning I felt perfectly well.

The discovery by the bear that I was approaching convinced me of the truth of the theory of a psychological magnetism that I have spoken of before. This bear could not possibly have seen me nor taken alarm at any noise that I made, for I was in moccasins and the ground was level and clear of brush. Also I had the wind of him. Going back over the ground next day, I found a

pool of blood, where the animal had lain down on the edge of the river.

On October 21 we moved camp about seven miles downstream to a spot near the river bank well protected by timber. On the opposite side the red conglomerate cliffs rose about a hundred feet vertically from the water's edge. Trout were abundant and easily caught. At this camp I killed three large grizzly bears, each with a dark, heavily furred robe. None of the three caused me any great trouble, for in each case the first shot was fatal.

One bright morning the mountains on the north side of the stream were climbed to a height of about three thousand feet in search of mountain sheep. Since leaving the band of elk we had not seen many deer, and four healthy souls—including the dog—consumed a good deal of meat. From one point a fine view was had of the mountains across the Stinking River gorge, now white with snow. With the field glasses I could detect a plainly defined arch, which spanned one of the chasms or gorges. The arch was elliptical in shape and apparently of one hundred feet span, of gray stone, and was plainly outlined against the white snow lying on the side of the gorge below. I examined it long and carefully through a pair of

good field glasses, and was convinced of the existence here of a natural bridge. The autumn was so late as to make it impossible to further examine into the matter, nor in later years did an opportunity to do this ever present itself.

After spending a week at this camp and disposing of or frightening away the remaining bears in the neighborhood, I sent George downstream to look for a new camp. He returned in the evening and reported having found a good camp and nearby had come upon a band of elk and had killed a couple near the camping spot.

Accordingly, on the 29th, we moved about seven miles downstream to the mouth of a large tributary coming in from the south, and thence about two miles up that stream to the chosen camping place. As we afterward learned, there were many elk horns in this valley, which indicated that during February and March, at which time these animals shed their horns, they had made their way thus far back to the mountains from their winter range on the plains below. From this circumstance I named the stream Elk Horn, and it bears that name to-day.

The camp was a good one, the grass very luxuriant, making the spot a fine grazing ground for elk and other animals. Soon after making camp,

the best parts of the two elk were hung up in camp. We soon discovered that we were about a quarter of a mile below a runway traveled each year by the black-tail deer, when the snows of autumn warned them that winter was near. As soon as the snow becomes too deep to permit them to feed, these deer come down from the mountains to the Bad Lands on the plains below the foothills. In the spring, as the snows disappear and the young grass starts, they return by the same route. By watching this runway we could get a deer almost any day as long as the migration continued, but as soon as the snow accumulated, as it did before we left this camp, the deer ceased to pass; no doubt because they had all gone down. These runways are not along the valleys of the streams, but below the high mountain ridges, probably because the deer know that in the valley their enemies would watch for them.

One of the elk killed by Herendeen lay in the valley, about three-quarters of a mile above camp, and on the side of the mountain in another direction, was a second. These baits were soon discovered by the bears, and a few evenings afterward, watching at the one above camp, I killed a large grizzly with a dark, well-furred robe. He required only a single shot, and gave no trouble.

A few evenings later, while watching the elk carcass on the mountainside near camp, I saw a bear. The only way to approach him was to go up the valley and to climb over a rocky ledge to a position about on his level and within twenty or twenty-five yards of him. I knew that, unless hit through the brain or spinal cord, this bear, when shot, would—as bears usually do—place his head between his hindlegs and roll down the hillside. The first shot was delivered at his mass, and he acted as I expected. I quickly reloaded, and when he stopped rolling and straightened up before running, I gave him a second shot, which was sufficient. After dressing the carcass I found that the big horse that I had ridden had freed himself and gone to the herd, and to reach camp I was obliged to wade the creek.

Herendeen had told me that an elk he had shot at and probably wounded had gone up a dry ravine which came in just above the camp, and I determined to investigate in that direction, for it was possible that he had died from the wound. Following up this dry gulch that had been washed out six or eight feet deep and ten or twelve feet wide at the top by the melting snows, I found his body and saw that a bear had begun to feed on it. I selected a watch point, and George, the dog

and myself were promptly on the ground. Nip had recently acquired the habit of bolting for the bear before the first shot was fired, and George went with me to hold the dog, which otherwise, in his anxiety to have a share in the excitement, would spoil the evening's work. The point selected for the reconnaissance was on the side of a valley within half a mile of the bait and commanded a view of the high sloping mountainside opposite for about one mile. This was without timber, and from the signs seen in the morning, I expected the bear to come from that direction. We had not long to wait. Glimpses of a dark patch were seen, now disappearing and again coming in view down the mountainside. It was a large, dark-coated grizzly, headed directly for the elk. The dog saw him, and was trembling with excitement. We kept well out of sight until the bear disappeared near the carcass. I waited for a time in order that he might get thoroughly to work, and be so intently engaged as to be a little off his guard. The understanding with Herendeen was that he was to turn the dog loose at the first shot. In the morning I had determined my line of approach, and intended to enter the gulch below the bait and follow it up, and thereafter to be governed by circumstances.

When I reached the gulch at the point I had determined on and had cautiously reconnoitered, I could see nothing of bait or bear. Something had happened since morning. I therefore cautiously withdrew, and by a circuitous route reached a point further up the gulch—ground well above the bear, so that I might locate him, for I was sure he was there. Reaching this higher ground, and with a clear view of the place where the elk had been, it was not to be seen. Evidently it had been dragged down into the gulch within twenty or thirty feet of where it had been. As the elk weighed at least a thousand pounds, the bear that had moved it must have been a large one and full of resource.

I now removed my heavy leather shoes and cautiously approached the spot, field glasses in hand. The gulch was deep and narrow. I wanted to make a sure shot, and to do this it would be necessary to get very close to the bear before firing. The utmost care was necessary to prevent even a slight noise, for these bears have a keen sense of hearing, as well as scent. Stooping and stealthily approaching, I rose partly up when within twenty-five or thirty feet of the bear. He was there, but it had become so dark in that hole that I used my glasses to see him. He was lying on the carcass

with his head from me, exposing his back and shoulders. His head was so placed that I feared to shoot at it. I determined then to shoot at his back, just behind the shoulders, depending on getting a second shot before he could do much. When the shot was fired, the bear gave no squall—an indication that he was ready to fight—and scrambled up the side gulch toward which he was headed. Before he had gone ten feet from the edge of the gulch, I fired a second shot at his body without stopping him. Just then the dog passed me like a whirlwind. It was important to stop the bear before he reached a pine thicket toward which he was headed, and I fired a third shot, hoping to hit near the root of the tail and paralyze his hindquarters. Just as I was on the point of pulling the trigger, the dog got in the way, and I raised the rifle slightly, just grazing the rump of the bear, which, with the dog, had disappeared into the pine thicket. Out of patience with myself, and grumbling over the bad luck that after so much work the bear should escape, I followed rapidly—luckily on my side of the gulch—and had reached a position still further up the gulch, when I heard a rustling in the pine thicket, and out rushed Nip, closely followed by the bear, evidently furious with rage. Now, an ill-bred, badly

mannered dog, under these circumstances would naturally have rushed back to his master for protection, but Nip did nothing of the sort. With an intelligence quite human, as it seemed to me, he kept just far enough ahead of the bear to lead it on, the dog's head turned first on one side, then on the other, always with one eye on the pursuer. He led the bear straight across the open ground, causing him to expose his side to me, and saying as plainly as could be, "Now, boss, give him a good shot." I took advantage of the opportunity, hitting him in the side. The ball should have knocked him down, but did not. On the contrary, he turned from the dog and rushed straight toward me. In reloading, the shell stuck in the chamber and the breech-block could not be closed. The bear was near the brink of the gulch, evidently about to jump over.

The dog did not hesitate. As soon as the bear turned on me he was immediately at the bear's heel, and at the critical moment nabbed it and held on as long as he dared. The angry bear whirled, turned on the dog and chased him back fifty yards to the edge of the bottom. This gave me time to reload, and when the bear stopped, I fired again. Again it charged me on a full run, and this time the dog was not able to stop him.

Just before he reached the gulch, I fired another shot, and on reaching its edge, he had become so weakened from loss of blood that he could not make the jump, but fell down into the ravine, and was soon beyond doing any harm.

During the last part of this excitement, I noticed George Herendeen standing by at the foot of a tree, and after the bear had fallen into the gulch and become quiet, George came up to me and said, "Old fellow, a bear will get you yet!" I replied by asking, "Well, George, why didn't you pitch in and help?"

"Help?" he answered; "now you are forgetting that you have always said, in a scrimmage with a bear you did not wish any help; that you could handle them, and that if anything happened it was your lookout."

This, of course, was true; but if I had needed help, George would certainly have done his part.

I had always felt that if by any chance my rifle should fail me, as a last resort, I would face the bear, use the rifle with its heavy breech action as a club and endeavor to deliver a crushing blow over the animal's brain. I felt that on this occasion I came near being obliged to face this test. If the bear had succeeded in jumping the gulch, I do not know what might have happened.

George Herendeen's remarks on this occasion suggest a digression.

After the seasons of 1877 and 1878, I had about made up my mind that I knew nearly as much of the habits of bears as almost any old-timer that I could secure as guide. Few of these men had "lost any bears"; they cared nothing for whatever glory attached to bear slaying, and on these occasions were not of much use except to help take care of the skins. I had concluded also that I had acquired such skill in the use of the rifle, and such confidence in myself, that I did not fear an encounter with any of the wild animals to be met with. I felt, too, that if, with the modern breech-loader and his supposedly superior intelligence, man was not equal to an encounter with a grizzly bear, he had better stay at home. I considered also the danger of being shot by a companion in the excitement of the scrimmage or of my shooting him, for on these occasions few people keep cool. For these reasons I always preferred to hunt alone, whether by night or day, finding the game for myself and taking care of it.

An objection to this practice was the danger of accident from the rifle, from the stumbling or falling of the horse or from a fall through some accident which might result in a broken limb or in

some minor mishap, which would prevent locomotion. I had therefore made it a rule in camp that if at nightfall any one of the party failed to make his appearance, the other members should turn out and search for him. The usual practice of sportsmen coming from the East to hunt bear was to depend on the guide to find the bear, to take the sportsman up to it, and then allow the sportsman to do the shooting. I felt that unless the hunter had so much confidence in his rifle and himself as to be willing to tackle these bears alone, he had better not interfere with them.

In those days, when traveling over the plains or in the mountains, a pack outfit was essential to comfort, its size depending on that of the party. Absolutely essential was an expert packer, expert not only in lashing the loads on the horses, but resourceful in repairing the outfit and skilled in passing over difficult points of the mountains or in getting around or over snowdrifts. In these regards George Herendeen was a first-class man, and he was not at all afraid of a bear.

The bear killed on this occasion had more vitality than any I ever encountered and was the fiercest. In his last struggles, he still endeavored to get across the gulch. To kill him required six bullets from a high-powered rifle loaded with 106

grains of C. & H. No. 6 powder, with 340 grains express bullet. During the season of 1881, with a rifle of similar power, I killed twenty-three grizzly bears, seventeen of which were killed with a single ball. Into this bear only one satisfactory shot was fired, the fourth, at the time when the dog led him by me. Most of the shots were fired from the shoulder and during the excitement of the scrimmage. The dog no doubt saved me very serious complications, and was the hero of the day.

We remained at this camp until November 12, when the signs showed that winter was at hand. Black-tail deer had ceased passing along their runway. Other game had become scarce. Flour and other cereals were about exhausted, and snow was accumulating until it had become sixteen inches deep on the level. The feed for seven or eight head of horses was becoming scarce, and our fresh meat had given out. These accumulated reasons led us to break camp on this day, and to move down to get out of the mountains. That morning we had but a single baking of flour and no fresh meat.

When we reached the main stream below, we found just in front an abundance of meat—a band of about a hundred and fifty elk. Our five pack animals were so heavily loaded that it was difficult

to find a place for anything more. The eight bear skins had taken the place of all the food consumed since crossing the mountains. The valley of the river was narrow, not more than two hundred yards from the abrupt mountainside to the ice-bound river. We determined to approach the band quietly, get them started down the stream and gently urge them ahead of us until near the next camp, when we would kill one.

But "the best laid schemes o' mice and men gang aft agley." The elk preferred to go in another direction. As we approached them, one-half of the band began to climb the mountainside to the right, while the others had huddled together in the bottom and seemed undetermined what direction to take. We were traveling in the usual fashion. I was in the lead, followed by the packs in single file, while George and the camp-keeper, Erickson, followed behind, pushing along the pack animals, and seeing that their loads were riding well.

As we approached the elk, they became very uneasy, and showed no disposition to keep quietly ahead of us, down to the next camp. When we had approached still nearer, they began to attempt to pass us on the right, close to the mountain. I galloped in that direction to head them off, and

did not realize that the packs were following me. The elk doubled back, however, dashed by me like a whirlwind, passed through and among the pack horses, and swept them along in the general stampede. It was so sudden that at first we scarcely realized the extent of the misfortune. All we possessed was in those packs, and there was no telling what loss might result from their being scattered about among the sage brush. We soon overtook old "Red," one of the pack horses that was partially blind, and on this account afraid to go fast. We felt sure that Elk Creek, then covered with ice, which was a mile behind us, would stop them, but it did not do so, for they had crossed the fifty yards of smooth ice without falling, and were now standing exhausted only a short distance beyond. Herendeen at once examined the packs, and strangely enough found very few things missing. Only two of the packs had to be relashed.

In all my experience of life in the Northwest, I have never heard of a similar incident. These horses were not frightened, but were just carried away by the excitement caused by the rush of the elks. I have heard of horses being carried along for days by a rushing band of buffalo, but in that case they probably could not help themselves.

We were soon in good shape, and made a good

drive, passing down almost beyond the snow, though the greater part of the day's travel was through snow sixteen inches deep.

By noon of the following day we reached the point of the mountains just above the junction of the north and south forks of the Stinking River. Except for sugar, coffee, tea and dried fruit, we were pretty well out of food. We had been told that in this basin there were two ranches, the Carter Ranch and the Belknap Ranch, and these two cattle men during the past summer had each brought in about a thousand head of cows. I had known Captain Belknap well, for at the battle of Murfreesboro, or Stone River, he was a captain of the 18th U. S. Infantry, and I had no doubt that at his place I could get flour enough to last until we reached the Crow Agency, near the Yellowstone. Near the camp, therefore, we climbed a point of a mountain above the forks, high enough to get a view of the basin before us, and after carefully inspecting the landscape with field glasses, its curving smoke showed us a lone cabin three or four miles distant. We moved a few miles in that direction and camped in the brush on the bank of the south fork. I went on to the lone cabin and found there Dr. Carter, then manager of the Carter Cattle Company, whose herd had

been driven into the basin the summer before. He was a very intelligent, companionable and hospitable man, who, when he learned of the situation, at once supplied my immediate wants in flour and fresh meat. In those days flour and such things must be brought two hundred and fifty or three hundred miles over two mountain ranges, carried a part of the way on pack horses, in quantities sufficient for a year's supply. It is apparent therefore how precious it became. I was later able to return the supply received from Captain Carter from flour loaned me by Captain Belknap, whose ranch was located on the same stream, ten miles above, under charge of John Dyer.

For some days we were detained at this camp by a cold snap, the mercury going down to 32 degrees below zero, but on November 22 it had grown warmer, and we broke camp and started for our winter quarters at Bozeman. We crossed the south fork on the ice, passed around Cedar Mountain, opposite a lower cañon of the Stinking Water, forded the stream by an Indian lodge pole trail just below the cañon and camped on a small creek a few miles beyond. Above this camp the ice on each fork of the stream was at least a foot thick. The cañon is about eight miles in length with a fall of at least a hundred feet. The walls

are almost vertical, and the cañon cannot be passed through by man except on foot. On the trail crossing below the cañon there was no fringe of ice along the shore, but there was an all-pervading smell of sulphuretted hydrogen that was unmistakable.

From this camp we traveled by the most direct route possible—remembering the bad snowdrifts—on the usual trail. Fifteen days' steady marching—between November 23 and December 12—brought us at last to Bozeman. On the Rocky Fork we stopped one day to get a supply of fresh meat, while extremely cold weather caused a delay of six days at the Agency of the Crow Indians on Rosebud River. This cold snap culminated in the low temperature of 40 degrees below zero, and during its continuance we laid up in some willow thickets, where there was an abundance of good firewood. During the middle of the day the sun had a powerful effect in modifying the cold. We were all provided with suitable wrappings, and none of us suffered materially. At night our protection was a wall tent 12 x 14 feet, with a waterproof tarpaulin floor and robes and blankets sufficient. My bed was a fur-lined sleeping bag. A well designed sheet-iron stove kept the tent warm and comfortable.

At the point of one mountain the road was blocked by deep snowdrifts, and we left it to pass over high benches below, where at that time the snow was twelve inches deep. It took us eight days to go from Crow Agency to Bozeman, and owing to the snowdrifts on the direct trail, we followed the Yellowstone River and crossed it three times.

At the date when these notes are transcribed, August 25, 1908, there is being constructed at the upper end of the Stinking Water Cañon, by the U. S. Reclamation Service, the highest dam in the world. It is 307 feet high, and its purpose is to impound the waters of this remarkable mountain stream for irrigation purposes. The cost of this dam, built of concrete, with the necessary ditches and tunnels leading from it, will be from four to five millions of dollars. Along the valley of the stream there has been constructed by the Government the first-class road with all bridges needed for tourists.

Near the locality where the elk carried away our horses, at the mouth of Elk Horn Fork, is an important hotel called Wapiti, and just below the cañon is the town of Cody at the end of a branch road of the Burlington system of railroads. Near the point of the mountain where snowdrifts

obliged us to leave the road, is the present coal mining town of Red Lodge, a prosperous young city of five thousand inhabitants.

1881

In the spring of 1881 I determined to spend the summer and fall of that year among the mountains bordering the Big Horn Basin on the west, between Clark's Fork and the Grey Bull River. I wished also to get into the field as soon as the grass was sufficiently advanced to support the horses. Though desirous of retaining the services of George Herendeen for the season, I was unable to do so. He was an expert packer, resourceful and reliable in every way, and I regretted his loss.

However, I secured two excellent old-timers, each an expert packer, wholly reliable and full of resource. These were T. Elwood Hofer, as packer and horse wrangler, and Le Grand Corey, as camp-keeper. Hofer was of Swiss ancestry, educated and reliable, and was destined in after years to make an honorable record in the service of the Government. Corey was remarkable for his skill with tools and his readiness of resource in all the emergencies of mountain life. During this trip the stock of my rifle was broken short off at the

pistol grip, and with a few pieces of brass, he repaired the old stock sufficiently for use, and within a few days, from a pine stump and with a few camp tools, had made and fitted on a stock which I used for the remainder of the season.

Besides these, I had two other camp companions, Nip, my constant associate during the season of 1880, and Tuck, a half-grown pup of nondescript breed, which, under Nip's tutelage, I hoped would become useful. Nip had been given me by Jack Smith, of Bozeman, and was a cross between a Scotch terrier and a collie. He had been reared by a man who had hunted bears and had already learned much about their habits. He was not afraid of any grizzly that wore hair, but knew enough of their habits, and had sufficient activity, to keep out of the reach of their teeth and claws.

We crossed the Yellowstone May 5, swimming the horses at Benson's Landing, and crossing the baggage and men on a ferry. We went up to the edge of the mountains on Mission Creek, and soon after crossing, Hofer killed an elk for meat. In place of his own rifle, Hofer was carrying one of mine—a .40-90 Sharps business rifle. I had furnished 225-grain hollow-pointed ball. The cartridges were loaded with 100 grains C. & H. powder. At short range the effect of this bullet

was apparently as killing as my .45-caliber. The elk was killed with one shot in the lungs, the base of the bullet lodging against the ribs of the side opposite to where it entered.

From that time until June 15, I hunted along the foothills of the mountains bordering the Yellowstone Valley on the south as far east as Clark's Fork of the Yellowstone, a distance of about seventy-five miles. Though we did not find many bears, we had a very pleasant time, and greatly enjoyed the freedom from the confinement of winter quarters in a Montana climate.

The weather was pleasant, considering that it was spring. Enough deer were found to supply us with fresh meat, and a few days after crossing the river a grizzly was killed, from which was rendered sufficient fat to furnish us with lard for some time. Lard rendered from bear fat is much superior to that from hog fat, being whiter and more digestible.

From the Yellowstone to Clark's Fork the route lay through the reservation of the Crow Indians At that time no white man was allowed on the Indian reservation without the consent of the agent. Though little heed was paid to this law, yet in passing through the reservations I always asked permission of the agent, believing this cour-

tesy due him. Though sometimes visited by Indians, I was never troubled by them. When in the camp at meal time, they were fed, but at no time were their visits annoying. In fact, they always treated me with respect, partly, perhaps, on account of my reputation as a bear hunter. A singular superstition prevails among the Indians in regard to bear.[64] Knowing that the skin of this animal is difficult to render soft and pliable, and that the Indians were skillful in dressing all kinds of skins, I made an effort to have some bear hides tanned by these Indians. I then learned that they could not be induced to touch the skins, nor would they eat the flesh.

In the latter part of June, just before the noon meal, a small party of Crow Indians appeared at camp. One of them was the son of a Crow named Little Face, whom I had several times met. Hofer and Corey, who could talk good Crow and make a few signs, learned that the son of Little Face had just married, and was now on his bridal trip. It was therefore decided to give the party a meal of fat elk, dried fruit and whatever luxuries the camp afforded. Since in mountain life there are no rooms to which guests may be invited, and the only living room is around the camp-fire under the broad canopy of heaven, all gathered there and

watched the cook beginning the operations of the meal. As time passed, the Indians talked pleasantly among themselves. They were evidently hungry and were gratified at the prospect of breaking their fast. The various cooking operations went on, the bread was baked and the fruit stewed, and finally came the frying of the meat, which would thus be steaming hot when served.

Corey filled the frying-pan with thick slices of elk and an abundance of bear lard, and from over the fire an aroma grateful to a hungry man began to rise. This odor soon attracted the attention of the Indians, whose countenances, after some little talk, seemed to express despair, a combination of grief at the loss of their dinner and of dread of some impending evil. As they talked they became more and more excited, until at last they arose as if to go away, and of this an explanation was asked. With some difficulty and the help of many signs, we were given to understand that the cause of this change of feeling was the smell of the bear lard. They could not—dared not—eat anything cooked in bear's grease, and were about to go away. They had detected the dreaded odor at once. We explained to them that we knew nothing of their belief, and if they would wait for a little time, meat would be cooked for them uncontam-

inated. As they were hungry, they readily consented to wait. Corey then made for them a "dry fry," and they fell to and seemed greatly to enjoy their meal. The bridegroom and his friends seemed grateful that their feelings had been respected, and that they had not lost their anticipated feast. That a hungry Indian should refuse to partake of an attractive feast merely because a certain ingredient is used in its preparation, shows that some deep-seated religious or superstitious belief controls him.

Major Pease, of Bozeman, Montana, was long the Indian agent of the Crow Indians. He once stated to me, in answer to an inquiry, that from all he could learn there was an old well-defined tradition of the Crows that they were descended from the grizzly bear, hence the superstition.

On June 15 we had come to within a few miles of Clark's Fork of the Yellowstone, and camped on a fine trout stream called Moose Creek.[65] It was necessary to raft our property across this stream, which was high from the melting snows of the mountains, and a raft was constructed in a situation suitable for poling it into the current and drifting with it to a suitable landing point on the opposite shore. I shall describe the building of the raft and the manner of drifting it to the opposite

shore in the diary of 1882. When the raft was ready, the baggage was carried from camp and thrown on the ground before being loaded and lashed down on the raft. Just then on our trail and behind us appeared a party of from fifteen to twenty mounted men, and as they approached, they were seen to be Indians—men and women. One of the principal men, conspicuous by the size of his headdress, appeared, on nearer approach, to be a black man, a full-blooded African. It was a party of Crows on the way to visit the Shoshoni Indians at Fort Washaki Agency. The black man, as we afterward learned, was a Missouri negro, adopted into the Crow nation. He had a wife and a skin lodge, and his dress was that of an Indian. As the party reached us, Smoky, for so he was called, came straight up to where I was standing, and with the utmost assurance said, "Boss, give me a chew of tobacco." Smoky's manner and words recalled happy years, both as child and adult, of long association with that kindly race. If I had possessed a hogshead of tobacco it would have been freely dumped at his feet, but as I was not a user of the weed, his appeal was in vain.

I was recalled to the present by a glance at the angry stream. To the chief of the party I pointed out the raft we had fashioned, and offered it for

the use of his people after we had crossed. He looked at it with some attention, and then, as an expression of contempt spread over his face, he uttered the words "no good." He then sent off some young men to try a ford at the mouth of Pat O'Hara Creek, a few miles below, and thinking it worth while to take advantage of the Indian's experimenting, we awaited the return of the party. When they came back, Smoky, who was with them, reported a good ford half-side deep to his pony. The Indians at once set out for the crossing. We packed up and followed them.

When we had come within half a mile of the place the sight was not reassuring. The river at the ford seemed full of men and women, pack animals and loose horses all mixed up. Men and women swimming and yelling, and some of the horses swimming.

The Indians got across with their packs, but only after a wetting. When we reached the bank overlooking the crossing, some of the women were spreading the contents out on the grass and willows to dry. This showed us very plainly that we could not attempt to cross with the packs on the animals. Smoky, Hairy Moccasin and Little Face were preparing to take the loose horses across. A woman mounted on one pony was leading a mare

with colt following, and when all was ready, she started into the water, the other horses following, being pushed on and urged by the Indians. Just before reaching the opposite bank, some of the mares turned back for their colts that were nickering. At once they began to mill, turning around and around and being carried down into deep water. The only thing to do was to get back again on the same side to make another trip. They did this three or four times, but finally gave it up, not crossing the horses until the next morning when the river was lower. The horses that the Indians were riding had their forelocks tied up with a bit of grass to keep the hair out of their eyes, so as not to interfere with their vision while in the water.

Before returning to our raft, we sought for a more suitable place for starting into the water than the one we had stopped at. The men soon returned, reporting a better point down below. The pack horses were carefully unloaded at the point we were to start from, the raft was launched, with Hofer and Corey on it, and I went to a point below, where I could catch a rope thrown to me. A safe landing was made, and before dark all our belongings had been ferried over and we were in a snug camp. The horses had been driven into the water and forced to swim across.

From this day, June 22, to August 19, we were camped on and about Sheep Mountain, the easternmost spur reaching out to the plains of the Shoshoni group of mountains. The easternmost peak of this end is Heart Mountain, said to have received its name from the resemblance of this peak to a heart. It is the dividing mountain between the waters of Clark's Fork on the north and Stinking River on the south.

On these mountains we had three different camps, the highest being at an elevation of about 8,200 feet. On the mountains there was a large band of cow elk with their young and enough young bulls and mountain sheep to give us camp meat.

Cow elk have a peculiar way of calling their young. The sound is made with the lips, and can be heard for some distance.[66] In the summer season the cows keep close together for protection, and the young bulls, then a year old the previous May or June, herd with the cows. The black-tail deer had gone further back into the mountains.

Bears were fairly abundant, but I secured only two, and without adventure. Nevertheless, the experience with one of them is worth relating. In a small prairie nearby there was the carcass of an elk, which a grizzly soon began to visit. I

watched it for several evenings, but the bear failed to put in an appearance before dark; nevertheless, each night the carcass was dragged nearer and nearer to the open timber. When it had been dragged far enough into the timber for my purpose, it was tied by a hindleg to the limb of a tree, the elk being raised high enough to keep the bear from cutting the rope. That night a bear, believing that in the timber he would be safe, came to feed before dark. In the morning a seat had been arranged on the limb of a nearby pine, and as the bear approached, I easily killed him with a single shot. After skinning the bear next morning, we took the precaution to tie the bear carcass by the hindleg to the same picket rope, and as we thought, out of the reach of the next bear. That evening I took my position on the perch, watching in the direction of the bear's expected approach. It so happened that I was not sufficiently hid from sight by the foliage of the pine tree. At the expected time the bear appeared. I got a glimpse of him as he cautiously approached through the open timber. He had perhaps come within sixty yards when he stopped, stood on his hindlegs with his head concealed by a pine bough, peeping over it toward the bait. I could see only a part of him, and there was little chance to make a sure shot;

moreover, I expected that he would come closer. Suddenly he dropped on all fours, gave a snort, turned and moved rapidly back on his trail and disappeared in the pine thicket.

An inspection next morning showed that, as anticipated, the bear had returned, had stood up by the carcass of the other bear, and instead of cutting the rope, had cut through the bear's hamstring, by which it had been tied, thus freeing the carcass, and had dragged it about a hundred yards further into the timber. There he took a meal and then covered up the carcass, as, if the soil is not too rocky, bears always do.

It was now my business to circumvent this bear. I at once arranged a place on a limb of the nearest pine, talking care, however, that the foliage should protect me from view from the trail by which the bear was expected. That evening I was on hand, securely hidden on my new perch. The bear appeared before dark, approaching very cautiously and in my full view. When within seventy-five yards he stopped, sat up and gazed long and earnestly, but his attention seemed to be directed to the position that I had occupied in the tree the evening before. As he stood in full view he seemed the embodiment of savage fury, and was evidently spoiling for a scrimmage. Looking

savagely toward where I had been the night before, he gave his mane and ears a savage flap. It could have been heard a hundred and fifty yards off, the sound being like, but much louder than, the sound made by an old bear when he shakes his head after being worried by dogs. The bear did not appear to think of looking anywhere except where he had seen me before.

In the meantime I was cautiously getting ready for a shot. The distance was too great for me to risk a shot at the brain. Watching my chance, as he turned his head slightly to the left, I fired at a point between the shoulder blade and the neck, hoping possibly to smash the neckbone. If I did not do that, I hoped that the splash of the fragments of the express ball would cut the main artery in the neck. At the crack of the rifle he rolled over as a bear usually does on being hit, but without giving the peculiar bawl so often heard, and which I think indicates that he is whipped. The bear was on his feet at once and moved back on the trail as rapidly as he could. I descended from my perch and followed him into the timber, believing from his clumsy movements as he scrambled off and the sign of blood left in his tracks, that I should soon find him in the last agonies. In the pine thicket it was quite dusk, and

from the savage way in which the bear had acted, I felt that it would be dangerous business to jump him in the undergrowth. He soon entered some pretty thick pine brush, where I thought he would lie down. I followed him for a few hundred feet very cautiously. He knew he was being followed or else had more vitality than the nature of the wound indicated. It was now getting dark in the underbrush and I was alone. I decided to give him up and to return early the next morning and follow up his trail.

Corey and I were on hand early. Corey was an experienced and painstaking trailer, and I had every confidence in him. He was in the lead, to enable him to follow the trail, and I was so close behind him that the muzzle of my rifle was often ahead of him. In the blood, and in the actions of the bear there was every evidence that he was badly wounded. He seemed to be bleeding internally. At every pine thicket we expected to stumble on him. We followed for a mile down a sloping ledge, and just in front of us a bear started up and made off. We did not get a glimpse of him. Corey followed him for a short distance, when, his trail going down an abrupt mountain, it was abandoned. Corey at once contended that this was another bear, and said that we must have

passed the wounded bear in some thicket. It is certainly true that, after passing the place where the bear had spent the night, the signs of blood began to disappear. At any rate, we did not find the wounded bear, and returned to camp after having spent half a day in a fruitless search.

Four years after this incident, in July, 1885, I killed on the head of one of the forks of Four Bear Creek a large grizzly that in size, form and ferocity was the counterpart of the bear which Corey and I had followed. I was alone. At the first shot the bear rushed at me, crossed a deep ravine and was within a few jumps, when a second shot shattered the socket joint of his right shoulder so that he turned to his left and disappeared under a bluff. I followed rapidly, and as he turned and charged me, I gave him a final shot, which crushed the neck bone.

On skinning that bear two bullets of 200 grains weight, as if shot from a Winchester .44 caliber, were found buried in the fleshy part of its shoulder and neck, and besides these were found the fragments of a .45 caliber bullet, exactly similar to the express bullets that I used in 1881. This ball lay in the muscles of the neck and shoulder. The two localities are only about seventy miles apart, a distance not outside the range of the grizzly bear. I

have often thought that this might have been the same bear. The bear of 1885 indicated from his actions that he had been in several fights with man, and he did not hesitate as to what he should do.

Up to this time my dog had been of very little use. Often he would break before the shot was fired, and I tried to correct this by thrashing him, but perhaps the next time after breaking he would not return and would remain hidden for a week. The bad example that he set to the pup Tuck was such that he was soon spoiled and good for nothing. At one camp they were both in disgrace, and during several nights when they stayed out in the hills, the mountains rang with their yelps as they chased foxes and such game. Had Nip been with me when the bear of 1881 was wounded he would have followed him and brought him to bay by nipping at his heels. With the assistance of the dog I could have had a good shot that would have stopped the bear.

On one occasion, when the dog was away from the camp, it was necessary for Hofer and Corey to go with the pack train for a supply of provisions sufficient to last for the next three months. These supplies were to have been delivered at the Crow Agency by bull team from Bozeman. They left on the 5th of August, and returned nine days

later, on the afternoon of the 14th. I had retained my mare Kate, but beside her I was the only living thing in camp. I got along very well, however, reading and writing or hunting. Usually in the afternoon I took a ride up to the summit of the mountains to the south to watch the country for bear; usually without glasses. But one evening later, as I watched the southern slope of the mountain, a rifle shot was heard and an elk rushed out from a strip of timber. I was not at the moment anxious to meet either good Indian or bad white man, and did not try to find out who had fired the shot. During all my sojourn, time never hung heavy on my hands.

After the boys returned, we went down from these mountains, intending to cross the two forks of Stinking River and then to follow around the foot of the mountains toward Grey Bull country. We followed down the mountain by the trail along Rattle Snake Creek, and on August 22 camped on Carter's Creek, about two miles above the Carter Ranch. Here Captain Belknap visited me. He had just brought into this basin a thousand cows and located a ranch on the south fork. About the same time, Colonel Carter, from Fort Bridger, brought in about the same number of cattle under the management of his relative, Dr. Carter.

KIRGHIZ FALCONERS.

(See page 314.)

At this time the only other cattleman located on the west side of the Big Horn Basin was Otto Franc. He had settled on Grey Bull River, six miles above the mouth of Wood River. He drove into the basin in 1879 several thousand head of cattle from the Madison Valley, Montana, going by a roundabout way through the South Pass of the Rocky Mountains.

From August 25 to October 30 we were about the foothills of the mountains on the west as far as the point where Grey Bull River comes out on to the plains through its last cañon, near the mouth of Buffalo Fork. Our principal camps were at the forks of the Meeteetse Creek, and on the Buffalo Fork, near the point where it unites with the Grey Bull River. On Rock Creek there were other camps where we remained for shorter periods. These two months were, on the whole, the pleasantest, and from the sportsman's standpoint, the most successful of all the years spent among the Rocky Mountains. It is true, the grand scenery of the two previous seasons was wanting, nor was there the daily feeling of interest caused by beholding strange and wonderful sights, but as a matter of fact, this grand scenery and these wonders of the Yellowstone had begun to pall on me. They no longer aroused the emotions of pleasure and

wonder that they did when first witnessed. The scenes of this season were different in character. There were views from mountain peaks over the vast plains to the east, where the Yellowstone was bounded by peaks of the Big Horn Range, one of which has been said to be 12,000 feet in height. The weather was very pleasant. There were no extremes of heat and cold, such as we had faced the autumn before when on our return we endured for almost a month a temperature of from 25 to 40 degrees below zero. The first touch of winter came September 4, when there were two days of snowstorm, leaving six inches of snow on the ground.

During these two months from the camp on the head of Meeteetse Creek and the camp on the Grey Bull and from intermediate camps I killed nineteen grizzlies, the majority of them large, with well furred robes. Four grizzlies had been killed before this, but in two cases the robes were not good and were not saved. Twenty-one hides were taken into winter quarters at Bozeman.

By careful observation of the habits of this bear I had become skillful in approaching near enough without alarming the animal, to deliver a deliberate shot in a fatal part. Of the twenty-three bears killed during the season, seventeen required only a

single shot. None of these bears gave any trouble. As a rule, the first shot was fatal after a little time, yet even though mortally wounded, some of them might have made good fights had they seen by whom the shot was delivered, but shot at from ambush, their first move was to get out of danger and to run in the direction toward which they happened to be headed. On the other hand, I have never known of an instance where, if a bear saw from whence the bullet came, it did not start directly toward the person firing the shot. In such event the safest course is to face the bear, deliver shots as fast as possible, and as a last resort use the rifle as a club, and endeavor to strike a blow on the top of the head just over the brain. In cases where I have been charged, I have always succeeded in stopping the bears when within a few jumps of me, and have never been within reach of their claws. I determined early in my experience that to run away from an angry bear was useless. One of these bears, when badly wounded, was followed a short distance into the brush, and when she turned, was given another shot. Another bear, badly wounded, was followed into the timber by my dog, which brought him to bay. Following the dog's bark, I found the bear in the last agony.[67]

After spending a few days at Captain Belknap's Ranch, I set out for my winter quarters at Bozeman, Montana, following around the foothills of the mountains. This had been a red-letter year as regards sport, with the most formidable savage beast of the Continent, the grizzly bear. I was anxious, however, to avoid the disagreeable incidents of the last two seasons while traveling to winter quarters. This year, therefore, we started for Bozeman about November 1, crossing the Stinking Water on the lodge pole trail, just below the lower cañon. Thence we went by Crow Agency and Benson's Landing, reaching Bozeman December 3, 1881. The weather was pleasant, the direct route had not yet been obstructed by snow, and the journey was unmarked by any special incident.

1882

The winter of 1881-2 was pleasantly spent at Bozeman. At that prosperous mountain town there were three churches and a fine population of intelligent, broad-minded people, among whom I had many friends and congenial associates.

For the following summer I had determined to make a trip into northern Wyoming on the head of Grey Bull River, a country which during the season of 1881 I had found wholly free from the contaminating influences of the white man. I had with me Le Grand Corey as packer, and Heyford as camp-keeper and cook. Corey had been with me the year before with T. E. Hofer, a first-class man in every respect for the mountains or the plains, whom I could not secure for this trip.

After crossing the Bridger Mountains, just east of Fort Ellis, we went on to the Yellowstone River, crossing it at Benson's Landing. From there the route lay across the foothills of the mountains, following the Yellowstone River to the crossing of Clark's Fork, thence to the Stinking Water, and

across that stream to the headwaters of the Grey Bull. We reached Benson's Landing about May 20, 1882, and the crossing of Clark's Fork about June 15. At different points we stopped for fresh meat and for bears, but killed only one or two of the latter, and met with no special adventures. Clark's Fork was booming from the melting snow, and there seemed no prospect of fording it for a month. The only way to cross was by raft.

With this in mind, a still place was found just behind a little island, where the raft was to be built. Just below the island the current hugged the shore on which we then were. By using poles for a short distance, the raft could easily be pushed into the current. A little below this, the main current crossed the stream to the other side, and about 150 yards further down, the current hugged that bank so closely that a man might scramble to shore with a rope and hold the raft until it could be secured. All these matters had to be foreseen and considered before constructing the raft. The weight of the outfit to be floated was fully 1,200 pounds, and it was therefore necessary to find the required dead logs up the river, to snake them to the water by the saddle horn and float them down to the place where the raft was to be built. The logs must then be lashed together with picket ropes,

a platform arranged on top to store the bulky baggage, and finally the things secured so that no accident would tend to loosen or throw them overboard. The whole work occupied four or five days' time. When everything was ready, an early start was made, the baggage was carried to the raft and securely lashed on it. Its flotation seemed sufficient.

The next move was to get the horses across ahead of us. They seemed to know what was expected of them, for they took readily to the ice cold water and swam across. We were now obliged to cross over or else lose our horses. The raft was pulled into the current, which swiftly carried it downstream and across. Our forecast was realized, someone jumped ashore at the critical time and the raft was securely fastened. For a short time there seemed a little danger that the raft might pull away, but its resistance was overcome, and presently it was securely tied up, and we had the satisfaction of once more being on terra firma, with all our belongings safe.

The Stinking River, which was the next large stream, was wider and carried a greater volume of water than Clark's Fork, and I was unwilling to attempt to raft across it. We therefore remained longer on the mountains just north of that stream

than originally intended, so as to allow the water to flow off and the stream to become fordable. I killed one or two bears in these mountains and the elk furnished an abundance of meat.

We crossed the Stinking Water on July 12, and camped for some time near its forks, awaiting the arrival of mail expected from Fort Washakie.

At this camp I found a spring flowing with water very similar in taste to the famous Saratoga water. It was on the south side of the river, just above the entrance to the lower cañon of the stream. In the sand a hole was scooped out, a foot and a half deep and about six long, which soon filled with this water—slightly milky in color. Bubbles of air came up through the spring and also through the water of the river along its shallow edges. The water was delightful in taste and very pleasant to drink. In later years when I visited this locality, the spring had been filled up by sand during the overflowing of the river, and no trace of it was found.

From the 10th to the 29th of August we were on the head of Meeteetse Creek, whence we crossed over to upper Wood River, and from there ascended the high plateau opposite the camp occupied for several weeks in the season of 1881, where I was successful in securing bears. We crossed

Franc's Creek and ascended the mountainside, the slope being gradual until we had come within a quarter of a mile of the rim-rock. From that point the ascent was up along an elk trail full of boulders to the top of the rim-rock, where the country opened out into rolling open mountain benches that could be traversed on horseback. The rim-rock, seen about many of these mountains, was from fifty to a hundred feet in vertical face and at an elevation of about 8,500 feet above tide. It could be surmounted by horses only at a few points, this elk trail being one. From the plateau the trail dropped down into the valley of Willow Creek. We followed the trail nearly to the stream's head, and camped at a spring. The horses had had a hard climb and we needed meat. We therefore camped early, thinking that we would get our meat that afternoon, and the following day would examine the mountains for a permanent camp. It was now August 23, and storms might be expected at any time. Corey and I went hunting in the afternoon, I to look for sheep in the mountains east of the camp, while he went to the southward for elk. I saw two fat rams, but had no opportunity for a sure shot; but Corey had stumbled on a band of elk about two miles above camp, and had killed a fat bull with a splendid set of horns.

The next morning we set out to bring in a good supply of meat, taking with us a set of ice scales used for weighing our animals, where this was desirable. My diary of that date says:

"Go with the scales to weigh bull elk. After being drawn (all inside viscera removed since last evening) he weighs 830 pounds. I meet with a serious accident this morning. In helping to lift the elk around, jammed my right leg against the sharp tine of the elk horn. It penetrated the muscular part of my leg just below the knee on right of bone, one inch deep and one and a half inches long. Rode to camp and applied cold water, after closing the wound with sticking plaster. Swollen a good deal in the evening."

That note tells the story. The scales could not weigh the animal until he was cut into four or five parts. In assisting to weigh one of the pieces, my right leg was jammed against a small tine of the elk horn. The matter appeared to me very serious. In two cases in early life neglect of just such hurts—or of wounds of a less serious nature—had caused a local erysipelas that lasted three months on one occasion. The nearest surgeon and hospital was at Fort Washakie, a hundred and fifty miles to the south. The nearest haven was Fort Ellis, near Bozeman, three hundred miles to the north.

Neither place could be reached, except on horseback. I knew that with such a wound it would be impossible for me to travel on horseback to either of these army posts. That night after supper we held a council of war. I expressed the opinion that it would be a month before it would be safe for me to travel much. We had plenty of food, the weather was still splendid, and I thought the safest plan was to stand pat and await developments. The boys cheerfully acquiesced, and I knew they would stick by me. Immediately on returning to camp, I began to make use of experiences of the Civil War. Near the camp there was a snowbank left from last winter. The boys brought a bucket of snow and bound this to the wound. Snow was kept on it all night, and with good effect.

It was obvious that our camp must be made as comfortable as circumstances permitted, since bad weather might come at any time. Corey's first work was to make me a pair of crutches. Then the boys made a splendid spring mattress out of small pine poles and the boughs of evergreens. We were soon perfectly comfortable. My tent, 12 x 14, with four-foot walls, a tarpaulin for a floor and a well tested camp stove, was a comfortable home, a good eating place and a sitting room for the party. The boys had a small A

tent. We made one mistake. The camp should at once have been moved up into a pine grove just to the rear as a protection against the strong west winds, to which we were exposed. This had not then been learned. There was a spring of pure water within fifty yards of the tents.

My crutches reminded me of the accident of Christmas, 1879, when my mare slipped on the ice and fell, catching and crushing my right foot. I had lively recollections of the difficulties and discomforts that followed that occasion.

By continued applications of ice and ice-cold water, inflammation of the wound in my leg was kept down and it continued to improve; but it was not until Sept. 22 that I made an effort to go back to the old life. In the meantime a number of things took place. As soon as we had finished putting our camp in order, Corey one evening went over to the elk carcass. He returned before dark, reporting that he had killed an old grizzly bear and two cubs. Then it was that I realized my helpless condition, and chafed under the restraint. The next day he brought in the three skins. Not long after came the whistling time of the elk. One night a bull announced his presence only a few hundred yards above camp. Corey slipped out and killed it, reporting it good and

fat. The best parts of the bull were hung up. Corey trapped a little and caught several coyotes and foxes at this bait. About ten days later another bull was killed just across Willow Creek, a quarter of a mile from camp. His flesh was not good. Early in September we had snowstorms with fierce westerly winds, and soon the snow accumulated and began to form drifts. Meantime we were without news of the outside world. At this time there were only four cattlemen in the Big Horn Basin, but during this summer we united and employed Josh Dean—still living—at $50 a month to bring out our mail once a month from the nearest post-office. Mine at this time was delivered at Otto Franc's ranch, ten or twelve miles distant, and one of the men used to go for it, taking with him all outgoing letters.

Sept. 22 Corey set out with the mail. That night an animal was heard squalling at the elk bait across Willow Creek. At breakfast I suggested to Heyford that he take his rifle, go out and get the fox and bring the skin to camp and tack it down to dry. After breakfast, the fox still keeping at this noise, Heyford started off with the rifle and a skinning knife. He had newly come into the West, had never seen a bear and had no desire to do so. He soon returned to the camp somewhat excited,

and reported that instead of a fox, it was a cub bear in the trap. The mother was rooting around nearby, and though she saw him, did not seem afraid. I felt that I must do something. For some time I had been improving, until now I was hobbling around on one crutch and one stick. The more I thought of the neighborhood of the bear the stronger I felt, and finally I proposed to Heyford that if he would carry my rifle, we would go out and see the bear. I supposed that the old one would remain with her cub, and we took no pains to conceal our approach. She must have discovered it, for when I hobbled up in sight of the place where Heyford had left her, she had disappeared. Higher up the mountain I saw peeping over a rise in the ground a dark spot, which proved to be the old bear, which had ignominiously deserted her cub, still in the trap. Heyford killed and skinned the cub, and we returned to camp. The exercise of the forenoon had not been injurious to my leg; in fact, I felt better. That night Corey returned with a good mail. It is said that troubles generally come in pairs, and something that happened a day or two later tends to substantiate the truth of this saying. The second day after I started out for the bear, I ventured on my first ride over the mountains to the west, into the

valley of a large creek, afterward named Jack Creek. We came on two mountain sheep, one of which I killed.

I had enjoyed the ride so much that, in the afternoon, I returned with the boys for the meat, and after it was lashed on the pack horse, I went further up the valley at the base of the mountain, telling the boys that I would return by another pass. Fifteen or twenty minutes after parting, it became necessary to cross a small brooklet, the bed of which was boggy, as in these mountains is often the case. The distance across the wide place was only ten or twelve feet. Trusting the mud was not too deep, I rode Kate in, and she was soon up to her belly in soft mud. As she floundered about trying to extricate herself, she fell over on her right side with her body and back downstream, catching my right leg under her. Fortunately there were no boulders, and the soft mud was so deep that my thigh was pressed down into the mire without serious injury, but my person, up to the hips, was deep in the mud. As the mare lay, her body was much lower than her feet, which made it more difficult for her to extricate herself. After struggling awhile, I spoke to her and she quieted down. I placed my left foot, then free, against the horn of the saddle and pressed against it with all my force.

This partly righted the mare. I spoke to her, she gave a few struggles, and regained her feet. I followed her lead, scrambled out of the mud, and soon had the mare on solid ground.

This suggests one of the dangers of solitary travel in the mountains. Had this accident broken an arm, or had I been in any way disabled, I might have lain there all night. The boys would not have suspected anything wrong before dark, and in the darkness might not have been able to find me. The nights were then cold, ten or twelve degrees above zero. I considered myself fortunate to have escaped as I did, and continued my ride, reaching camp at dark.

In the morning the inside of my thigh was somewhat bruised, but several days' rest in camp restored it to its normal condition. I was still careful of my injured leg, walking about camp with one crutch and a cane.

We had not forgotten the old bear. A short time after the last incident Corey, when he visited his traps one morning, found one of them missing. Further signs of a cub bear were to be seen, and the chain fastening the trap had been broken. He naturally suspected the old bear. Two or three nights afterward the jingling of a chain was heard in the direction of the bait across Willow Creek,

and we felt sure that the old she bear was there, the cub carrying around the trap, which the old bear had broken loose at an earlier visit. Telling Corey to carry my rifle, I hobbled after him with crutch and stick. We approached with much caution, following down the streamlet which flowed by the camp to its mouth, and thence under cover of a bank, following up a swale on the opposite side of Willow Creek, intending to get behind the carcass, where the bears were supposed to be. Nevertheless, in some mysterious way, the bear had received a hint of our movements, for after climbing high enough to look over the ground, there was nothing in sight. It was bright moonlight.

Above us in the direction of the pass over the mountain which bear used, there was a plain sound of iron being dragged over boulders. Corey at once gave me my rifle, and rapidly followed the sound, while I stopped behind to await developments. In half an hour he returned rather hurriedly, and reported that after following the cub and going nearly to the top of the pass, he had come so close to the cub as to make a rush for it to try and secure his trap. However, the old bear was on the watch on the mountainside above and to the right, and she made a dash for Corey.

Corey stood not on the order of his going, but went at once. As soon as the old bear got between her cub and danger she stopped, but Corey did not stop.

The next day Corey scouted around the patch of timber where he believed the bear remained in the daytime, and thought he heard the jingling of the chain as the cub moved about. He did not think it prudent to investigate. The second evening after that, about 9 o'clock, with a bright moon, a squall very similar to that of the cub came from the direction of the elk carcass, and we determined to investigate. Binding a wad of white tissue paper on the end of the rifle barrel, Corey and I started to see what was the matter, he, as before, carrying my rifle and I walking on a crutch. After we reached Willow Creek, we went up that stream about a hundred yards, and then climbed the bench toward the bait in a direction opposite to that taken on the previous occasion. When high enough up to obtain a view, there was the old bear quietly feeding and the cub squalling by her side. Getting my cartridges ready, I moved in a stooping position, until I had reached a place where I had an unobstructed shot, and dropping to my knee, was ready to fire. The cub saw us first, telling the old bear. She turned with her

right side exposed, and the shot was aimed carefully.

"Here she comes," hoarsely whispered Corey. I fired a second shot, and still she rushed on. Then Corey fired, giving her a desperate wound. Still she rushed onward, and when within a few jumps I fired a final shot. It did not stop her, but she turned to the left, down hill, stumbled along for a little way, fell and soon was still. She was twelve steps from us as she lay.

Next morning, measuring the ground from the elk carcass to the pile of shells, the distance proved to be forty-seven yards. Examination of the bear showed that every shot hit about the center of the mass as the animal approached. Corey's shot, with a light bullet, was an excellent one, and penetrated deeply. After a little time the first shot would have killed. Considering the moonlight and the somewhat exciting surroundings, it was first-class practice.

After dressing the bear, we were puzzled to know what to do with the cub. Corey, who was wearing his leather shaps, and so did not fear teeth or claws, walked up to the little animal, which, as soon as he was within reach, rushed savagely at him, seized him by the legs and clawed most energetically, but the leather was too thick.

He kicked the little bear off and was obliged to club him into something like submission, but the animal manifested so much life and innate savagery, that we determined to save him and try to bring him in alive. With some trouble, the chain was loosened from the stub to which it had become fastened, and with much pulling and some pounding he was brought to camp and tied to a sapling, where there was a good bed. All through the night, at short intervals, the cub kept up his mournful, heartbreaking wails, which sounded something like the cry of a child, but were a little hoarser. I began to feel sorry for the cub, even though its mother had tried her best to gobble us up. I even asked myself why Corey had beaten that cub so hard. Next morning we went to the cub to offer him some fat elk meat. Our kindly intentions were not appreciated, and there gleamed a savage light from his eyes. He rushed at Corey, seized his leg, scratching and gnawing at the leather shaps as viciously as last night. I felt that he needed no sympathy. He ate his breakfast greedily, which confirmed that view.

When the robe—a very fine one—was brought in, Corey thoughtlessly threw it to the cub, which recognized it and gave a distressing exhibition of affection.

My injured leg had now so much improved that I decided to trust it. Besides, snow was falling, the temperature getting lower, snowdrifts were becoming deeper, winter was approaching. It was time to seek a lower altitude. It was now the first day of October, and we had been here since August 23. It was not a good camp, exposed as it was to westerly winds and the drifting snow. We determined therefore to go down the mountains, making the first camp at the spot near the Grey Bull, at the mouth of Buffalo Fork, where we were in camp for several weeks the year before. This was the camp from which I had killed nineteen grizzlies within a month.

As I could be of little assistance in packing, I left ahead of the packs, intending to watch a certain point near the new camp for a bear. I reached the Grey Bull, found the site of the old camp, and at the proper time went to the mouth of Jack Creek to look for the bear. He did not appear before dark, and I returned to camp, built a big fire and awaited the arrival of the outfit. It was not until about 9 o'clock that I heard shouts across the creek, and soon after, the outfit crossed at a ford, and we were comfortably in camp. Corey reported that when they started he was unable to put the cub on the packs and that he had finally set it free. I

was greatly pleased that he had done so, for the cub would have been a great care and trouble, even if we could have taken it to civilization. I felt no concern for the cub's welfare this winter, for there were three elk carcasses on which it could fatten until the time came for it to "hole up." If these were not enough, there was the old bear on which it might feed, since bears readily eat other bears.

The bear that I looked for at the mouth of Jack Creek was likely to visit that bait late at night, and I determined to track him to his den in the snow. In this I was unsuccessful. Several places were found where there were fresh signs of his having laid up during the day, but in no case was he at home, and after an ineffectual half day's work endeavoring to find him, I gave it up.

I was so much discouraged at the outlook here that I determined to close the campaign and at once seek winter quarters. The trail close to the mountains was too deeply covered with snow to be followed, and I chose one lower down. The first camp was made six or seven miles below, close to the river bank. In front was a meadow with a spring at the foot of the bench. On the left, just behind the camp, was a cottonwood grove, backed by a dense willow thicket. Above the thicket was another larger meadow with two bold springs. I

was so impressed with the situation that I selected it for a ranch to be entered under the land laws as a pre-emption claim. I made arrangements with Corey to build for me during the winter a cabin of suitable size with three rooms. The buildings were constructed during the following winter and spring, and, with improvements made later, became my residence until the fall of 1904.

About this time the track of the Northern Pacific Railroad had reached the present town of Billings, Montana, and I determined to make for that point and to decide later on winter quarters. We set out therefore for Billings, and on October 30 reached a camp near the ranch of J. Bradley on the North Fork of Stinking River. This camp is just above the cañon of this stream, where is now being erected (September, 1908) a dam 307 feet in height, which will overflow much of this country. I arranged with J. Bradley to take me with my baggage to Billings in his wagon, leaving my pack outfit, horses and all other property at his ranch. I also arranged that he should meet me at Billings in the spring and bring me out to my ranch on the Grey Bull. I arranged with Corey to take care of my horses and packs for the winter. Corey and Heyford were to go to Billings on horseback and to be paid off there. We

left the ranch October 31, crossed the divide by the Heart Mountain Pass to Pat O'Hara Creek, thence to the Yellowstone River, and so to Billings, Montana, which we reached the afternoon of November 5. A little later the boys, who were enjoying their return to civilization, were settled with. An association of six months under the trying conditions of the mountains had naturally brought us close together, and genuine friendships resulted.

I took quarters at the Metropolitan, a new hotel of rough boards hastily thrown together and thoroughly well ventilated. Here I had the great pleasure of meeting two old friends of antebellum days, Joel B. Glough and Adna Anderson. We had been fellow civil engineers on connecting railroads in Tennessee for several years, and had become good friends. Adna Anderson was a fellow member of the American Society of Civil Engineers. He was at that time engineer in chief of the Northern Pacific Railroad, while J. B. Glough was his principal assistant engineer at the end of the track. It was extremely pleasant to meet these men in this out of the way part of the country.

I spent about two weeks in and around Billings, partly on business. Messrs. Anderson and Glough were very kind. I made a trip with Glough to the

head of the track, sleeping in boarding cars and enjoying it all.

The hotel which I occupied was a small construction of loose boards, and the change from sleeping in a warm tent to these quarters in a barn of a hotel, did not agree with me. I caught cold, and on November 21 became seriously sick. When my friends learned of it, they at once sent me one of the best of surgeons, Dr. Parker, who pronounced the disease pneumonia in one lung, and two nurses were provided. In a week the other lung became involved. The next morning after this new complication, appeared friend Glough with the doctor and four stout men with a stretcher, and told me that it was imperative that I should have more comfortable quarters. I was put on the stretcher, carried through the streets for several hundred yards and deposited on a very comfortable bed in a convenient, well furnished room in a building constructed by the Northern Pacific Railroad Co. for the use of its Engineer Corps. The room was Mr. Glough's own room, which he had given up to me.

For twenty-six days I was sick with this dread disease, and for a week my fate hung in the balance. At last, however, the kindness and attention of Colonel Glough, Dr. Parker and Mrs.

Tomlinson, the matron of the building, together with a strong constitution, pulled me through the crisis. While I was convalescing, Dr. Monroe came from Bozeman to visit me, as also did George Wakefield and Mr. Huffman. On December 18, with Colonel Glough, Mrs. Tomlinson and a number of young engineers, who were going East, I left for Minneapolis. When wholly recovered, about the middle of January, I went to Denver, Colo., where I remained until May, when I returned to St. Paul. I left Billings May 15 for my new ranch on the Grey Bull, riding my old horse, purchased at the mouth of the Musselshell from Pike Landusky, which had carried me over many a mile of prairie and mountain. We reached my ranch on the Grey Bull River May 30. I had engaged J. Bradley and his wife to live with me, and we shortly moved into the buildings which Corey had finished, and took formal possession. I lived on that ranch until the fall of 1904, twenty-one years.

1883

In September, 1883, I was living on my cattle ranch on Grey Bull River, Wyoming, Big Horn County, with Jay Bradley and his wife as employees; Mrs. Bradley as housekeeper and cook, and Jay doing the outside work.

I had determined with Bradley to take a hunt in the mountains to the west for grizzly bear and elk, the latter for winter's meat.

We were to have started the next day, September 12, when word came that Otto Franc, my neighbor, six miles below, while gathering his beef cattle preparatory to taking them to Chicago to market, had met with a misfortune in which, during a stampede, fifty fat beeves, while attempting to cross a deep gulch, had been trampled to death by those following. The catastrophe had taken place about three miles below me, near the river, at the mouth of Rose Creek, a mountain stream, which, through a gorge about twenty feet in depth, entered Grey Bull River from the north.

My neighbor, Richard Ashworth, had filed on the land around the mouth of this creek, and George Marquette was constructing the necessary ranch buildings just above the mouth of the creek. Among his other belongings, George owned an "ornery" bench-legged dog.

The men in charge of the seventy-five beeves already collected, crossed the cattle just above the mouth of this creek, the cattle coming out of the river bottom on to the bench just opposite the tent occupied by George and his dog. As soon as the leaders of the herd emerged from the bottom, the dog burst out at them, barking fiercely. Fat cattle are usually easily alarmed, and in this case the leaders were greatly frightened. They turned square to the right, ran at full speed toward the gorge at the mouth of the creek, the others of the herd as they came to the top of the bench madly following the leaders. The leaders, naturally hesitating on the brink, were swept into the gorge, followed by the balance of the herd. The finale was that the gorge was literally filled up and bridged over with a mass of fat beeves of 1,200 to 1,500 pounds weight, about fifty head being trampled to death.

From my knowledge of grizzly bears, I knew that all the bears from the surrounding mountains

would be attracted to this pile of fat flesh, so I determined quietly to await developments at home.

Knowing the habits of these bears, it was evidently a discreet policy to move with a good deal of caution; not to show myself to them or to leave my scent around or near the bait late in the day. Alarmed in any way, they would at once become cautious, and would come to feed only at night. I accordingly scouted around early in the day on the outskirts of the locality to ascertain the route by which the bears approached, and then late in the evening, watched the trail some distance back from instead of at the carcasses. The bears soon found the feast and commenced their visitations.

Four or five days were required to ascertain the direction from which they came and the route or trail they used. I found that one or more came down Rose Creek, or Four Bear, as it was afterward named, and one or two came down the river on the north side. Watching the trail on the latter stream, on two evenings, I saw a bear pass down about sundown, but on each occasion out of good rifle range.

A few evenings afterward, the same bear again passed down the valley, but still out of rifle range. Unless sure of a certain hit, in a vital place, it was not good policy to fire. Watching the other trail,

I selected a location near the carcass, to catch the bear coming down the river, thinking he laid up during the day in a certain thicket. Going early to a position at the head of the trail he traveled in coming from the thicket, a porcupine was encountered, and by punching him with my rifle, he was made to climb a small tree, and was made an object lesson—a sign that there was no danger.

Soon after locating myself, a dark object was seen on the edge of the thicket, apparently peeping out. He soon satisfied himself that the way was clear, and walked rapidly toward me. He had reached the foot of the trail approaching me—about twenty yards distant—when I delivered a shot, but it was not effective. As he rushed back toward the thicket, two more shots were delivered, when he dropped at the edge of the thicket, too badly hit to go further. This happened before night. He was disemboweled and the ranch was reached before dark. After firing several shots around a carcass it was useless to remain longer, as no bear would come till late at night.

I now turned my attention to the bears approaching from Four Bear Creek. The first evening's reconnaissance came near success. Lying in full view of a trail, but close enough, with plenty of daylight for a safe shot, an old bear and two

cubs came along the trail. In rising to a position for delivering a shot, the rustling of the grass attracted the bear's attention, and she stopped, the cubs sitting up and looking to see what was up. It had become dark, and the distance being 125 yards, I determined not to risk a shot, but wait for a more convenient season. They passed on down.

A reconnaissance the next morning indicated that the bears laid up during the day in a willow thicket near the creek and about a mile above the pile of beef. I selected a place on the hillside near the trail they traveled, to occupy that evening. I was accordingly on hand about sundown, and was soon in position, dressed in a buckskin suit of the color of dead grass.

The light was becoming dim, when a slight sound came from the thicket above, and soon there appeared on the trail a dark object, followed by two smaller dark spots. I at once realized it was the old bear and the cubs, and prepared for what was to come. The trail along which they approached passed within thirty feet of me. My first shot was delivered when the old she bear was within fifty feet. In the dusk it was not at once fatal, for she rushed toward me with two or three jumps, and then not knowing exactly where I lay, stood on hindfeet to look for me. I was then

ready for her, and a close shot delivered into her chest rolled her over. I then delivered a shot into each of the cubs, one of which managed to get back into the brush. I quickly followed, and by its squalling found it and delivered another shot. As it ceased squalling, I was satisfied it was dead. By the time these bears were dressed it was fully dark, but the moon was shining, although occasionally obscured by a cloud.

I determined to make a scout around that pile of beef before bedtime. Mounting my hunting mare Kate, I made a circuit to the left for some distance, so as not to alarm any animal there, either by scent or noise. Cautiously approaching, my mare was tied to a tree about three hundred yards to leeward of the carcasses. The mare acted very uneasy and must have scented the bears.

I took the precaution to tie a wad of white tissue paper on the end of the rifle barrel, over the sight, for night work, and cautiously approached. My object was to slip up to the edge of the gulch and have a commanding view below. At such short range I could get one good shot, and then depend on having a second shot as the bear ascended the opposite side, which had a gentler slope.

When within one hundred feet of the rim of the gulch, a coyote passed just in front of me and dis-

appeared down toward where the bear would be found. I knew he would at once give the alarm. Knowing that animal's character for veracity, or, rather, for lack of veracity, I hoped the bears, if any were there, would pay no attention to him, so I walked rapidly toward the gulch. When within fifty feet of the brink, two dark objects appeared, walking rapidly up the opposite slope. The moon was clouded over, and as I was not ready to shoot, I at once dropped and lay prone and very close to the ground. When the bears reached the top of the bank they stopped, and immediately sat up and looked very intently in my direction. Then they walked away about fifty feet, turned and walked back again, and again sat up and looked. They moved about, back and forth, in most intricate or fantastic fashion, sitting up occasionally to try to discover danger. They evidently had not believed the coyote talk, yet they were unwilling to take any chances.

Discovering no sign of danger, and doubtless being hungry, they returned down the slope to the feast. I was on the point of slipping up to the brink and delivering a shot, believing I could get both—the second one as he ascended the slope. Before I had time to move, however, the coyote, doubtless wishing a free hand at the carcasses, had

insisted on his story, the two bears walked swiftly up the opposite slope, again sat up, took a searching view in my direction and commenced going through the same gyrations as before. Had they believed the coyote's tale at first, they would have come up from the gulch on a run and disappeared.

Their actions plainly showed their uneasiness and their doubt as to what course to pursue. Before them was that mass of fat flesh they were eager to fill up on; yet, in the face of the story told by that lying coyote, that their inveterate enemy was lurking near, they hesitated to take the chances. Finally, at a swift walk, they went up the opposite bank, thus apparently intent on some scheme. I kept them in sight with my field glasses until, after going about two hundred yards, they stopped, remained irresolute for a while, and then retraced their steps and appeared on the point of descending to where the coyote was enjoying himself.

They were evidently afraid to do so, and again sat up and looked long and intently in my direction. My clothes were so much the color of dry grass and I hugged the ground so closely, with my head to them, that they did not discover danger. Again they began to do what they had done before—walking away fifty feet or more, then com-

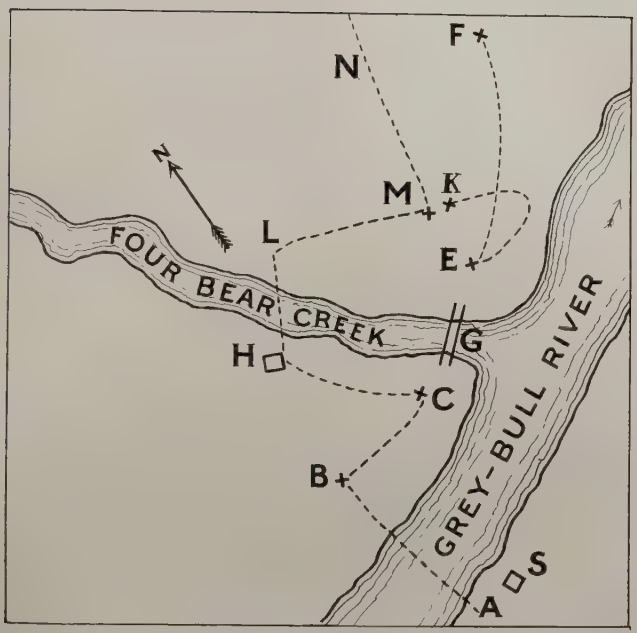
ing back again, and sitting up and looking intently in my direction. By this time I became very much interested as to the significance of their actions, and my wits became sharpened. I became interested in guessing at what these two hungry bears would do.

Finally putting their heads together, they apparently held a council of war and determined on a course of action. They moved swiftly up the creek, as once before they had done. I watched them through the field glasses, for the moon was shining, and they soon disappeared in the darkness.

It then dawned upon me what these bears were up to. Evidently they intended to cross the creek a short distance above, make a circuit some distance in rear of the point where they feared their enemy lurked, obtain its wind, ascertain what it was and then act.

In the bright moonlight and the open cottonwood timber a good view could be had by the aid of glasses for a long distance up the creek. I kept a sharp lookout, and soon detected two dark objects, and approaching. My surmise had proved correct. It was time to act. Withdrawing cautiously out of sight, I made a circuit to the rear far enough, as I believed, to circumvent their designs, took a position in a low swale, and waited.

As they approached at a fast walk, they could be easily heard sniffing the air for the scent of their enemy. They looked fearfully big in the moonlight. Finding my position was sufficiently far back to circumvent their design, I lay down on the side of the swale in a position from which I could quickly rise to a sitting posture and deliver fire. Sniffing the air audibly, they came rapidly forward, and as it happened, along the lowest part of the swale in which I lay, and with the direction taken, they would soon stumble upon me. They were approaching so rapidly that something had to be done soon. It was now "either a fight or a foot race." I did not hesitate, but rose quickly to a sitting position with rifle ready for action. At the change of position the two bears, either from noise made by my movement or getting a sight of something unusual in the moonlight, stopped. Almost as quick as thought, by a careful aim, I delivered fire at the mass of the foremost bear, and at the crack of the rifle he fell in his tracks. The other bear remained motionless, apparently dazed. Another cartridge was quickly inserted, but before aim could be taken he sprung off to the left and was soon on a full run to the hills near, making fearfully long jumps. Before he had gone far, the first shot was delivered—a miss; then a second



"BATTLEFIELD" OF SEPT. 13, 1883.

A B—Route of cattle crossing river.
H—Marquee tent (unoccupied that night) and dog.
H B—Route of dog when he said bow-wow.
F—Where Kate was tied.
E—Where hunter lay flat.
C H L M—Route of two bears in crossing creek.
M—Where the last bears stood.
K—Point whence last shots were fired.
M N—Route of second bear as he escaped.
G—Pile of beeves.
S—Camp of U. S. Surveyors.

shot—a miss, and he soon disappeared in the darkness. These shots were fired about half past nine o'clock. Before their reverberations had ceased they were answered by the yells and whoops of a party of United States surveyors, encamped, as I learned later, across the Grey Bull River, just above the mouth of the creek.

On examining the carcass, I found that the bullet had penetrated the skull near the eye, passing through the brain, and hence the sudden and motionless death. As the fore-sight was a wad of white tissue paper bound on the end of the barrel, this proved a good shot at thirty-seven and one-half yards, as measured from the carcass the next day, to the point at which the three empty shells were found.

I should have secured the other bear, but in inserting the cartridge in the Sharps rifle it was not pushed in far enough, there was a hitch in closing the breech-action, and precious time was lost.

No further attention was paid to the humble coyote. By his strategy he had earned his good luck, as for that night at least, he had undisputed sway over the pile of beef.

After hastily dressing this bear, Kate was hunted up, mounted, and by midnight I was abed, well satisfied with the evening's work.

As my ranch had not been occupied until May 30, there had been little preparation for winter's vegetables. Jay Bradley had gone to a ranch fifty miles to the north for a thousand pounds of potatoes, bought at four cents per pound, and was due the next morning. I accordingly intercepted him the next forenoon, the wagon was driven by the carcasses, they were loaded into it and brought to the ranch. In passing home we met my neighbor, Richard Ashworth, who soon after moved to his new ranch. He stopped and wondered at the wagon box full of grizzly bear. These bear were all weighed by a pair of ice scales; the old bears, 350 pounds each after dressing, equivalent to 475 pounds on foot, and the cub 100 pounds, equal to 135 pounds on foot.

As it happened, Mr. Ashworth visited the U. S. surveyors' camp, and told them of the result of the firing the night before. As these surveyors were giving names to all streams for their maps, the name of this creek, at neighbor Ashworth's suggestion, was changed from Rose to Four Bear Creek. In after years, when a postoffice was established in this neighborhood, the name Four Bears was given it in the petition for its establishment.

I have given this night's happenings thus in

detail, as it was one of the most exciting adventures I ever had, in an experience of more than seven years with this big bear, and required the exercise of the greatest coolness and judgment and knowledge of the habits of this fierce animal.

Had the last bear received any other wound, however fatal, except the paralyzing shot through the brain, there might have been not a little trouble that moonlit night, in which the bear's partner might have taken a hand.

Wm. D. Pickett.

NOTES ON MEMORIES OF A BEAR HUNTER

By Geo. Bird Grinnell

To many readers the years told of in Colonel Pickett's Memories will seem a period of romance, and it is true that they deal with ancient history. Of his references and allusions to people, places and events, some or many—though matters of common knowledge at the time of which he writes—have now long been forgotten, except by the small number of people who were familiar with those times. It was not long after the years referred to in the last chapters of these Memories that much of the West was overswept by a tide of immigration, and a new population, occupied with new and personal affairs, came into the country, and by their numbers overwhelmed the older population, and effaced the memory of a multitude of the old events.

For this reason, it seemed desirable that some of Colonel Pickett's chapters should be annotated with some fullness, and Colonel Pickett received the suggestion with much satisfaction and wholly approved of it.

Notes on Memories of a Bear Hunter

I was in Montana before, during, and after the years described by Colonel Pickett, and from my own knowledge of events, and with the help of others, I have been able to add to Colonel Pickett's narrative certain explanations which may be of interest.

T. Elwood ("Billy") Hofer, who was out with Colonel Pickett for one or more seasons, and who spent many years in the Yellowstone National Park, has kindly helped me with a number of suggestions bearing on events of more than thirty years ago.

1876.

1. *Fort Abraham Lincoln, N. D.,* was established June 4, 1872, by Companies B and C, Sixth Infantry, under the command of Lieutenant-Colonel Daniel Huston, Jr. The post was first known as Fort McKeen. The name was changed November 19, 1872.

It was from Fort Abraham Lincoln that General Stanley set out in 1873 for the Yellowstone Expedition, General Custer in 1874 for the Black Hills Expedition, and again in 1876 for the Yellowstone Expedition, where the Seventh Cavalry was almost annihilated. Abandoned September, 1891.

2. The complete story of the Custer fight has never been written, though a multitude of individual articles have appeared which describe some of its incidents. Of all this literature, the best account is that written

by General E. S. Godfrey, and published in the Century Magazine in the year 1892. It is understood that General Godfrey has long been engaged in the preparation of a book on this campaign, and when published, this book is likely to give us all that we shall ever know about the destruction of the old Seventh Cavalry.

3. *Missouri River Steamboat and Freight Traffic.* Steamboat travel on the Missouri in those days was slow, and sometimes difficult. The boats were of very shoal draft and were propelled by a single paddle wheel at the stern. When the water of the river was low, the vessel was constantly running on newly deposited shoals and sand-bars, for the channel of the river changed from hour to hour. For this reason, at low stages of water, the boats usually tied up during the night.

Each vessel was rigged with two long spars or poles, one at either side, just a little forward of amidships. One end of each spar was shod with iron, and through the other, or through a pulley attached to it, ran a rope, one end of which was fastened to the frame of the boat, while the other end was free. If the vessel ran firmly on a sand-bar or could not find a passage over a bar that seemed to block the channel, the iron-shod ends of the spars were put overboard and rested on the bottom—the spars standing vertically—the free end of the rope was put about the drum of a donkey engine and the forward end of the boat was thus literally lifted up, and by means of the sternwheel propelled forward, until the bar

was passed. If the bar was too wide, the boat was let down again to rest on the bottom, the spars were moved forward a few feet, the bow was lifted up again, and the pushing by the sternwheel renewed. In that way the steamboat used to frequently "walk" over the sand-bars. Sometimes it was necessary to land men and carry forward a line to some point on the bank where it could be attached to a tree or to a post set in the ground—called a dead man. This line was then put about the drum of the engine, which pulled on the line, while the clumsy wheel pushed behind. This operation, in a sense, resembled the old-fashioned cordelling, where a number of men marched along the river bank hauling the boat up against the current by a long line. The donkey engine, which was so much in use during these periods of low water, was called the "nigger."

The earlier freight traffic up the Missouri River was by means of keel boats. The boatsmen made their way up the stream in such fashion as was most convenient, rowing, poling or cordelling, as the case might be, from starting point to finish. Year by year the steamboats extended their journeys from St. Louis further and further up the great river, and as the journeys of the steamboats lengthened, those of the keel boats grew shorter, though the mackinaws were long used in sending furs down stream—with the current. General Chittenden says:

"In the year 1831 the first serious attempt was made to navigate with steamboats the Upper Missouri River. The steamer Yellowstone in the summer of that year reached Pierre, the site of the present capital of South

Dakota. In the following year the same boat reached Fort Union above the mouth of the Yellowstone River. The Assiniboine followed in 1833, and the latter boat in 1834 and 1835 reached Poplar Creek, sixty miles higher up. In 1850 the mouth of Milk River was reached. In 1858 the Chippewa was built with special reference to the difficulties of upper river navigation. She was a sternwheel boat of light draught, and with her it was resolved to make a thorough trial of the extreme upper river. The attempt was successful. The boat reached Fort Brule, twelve miles below Benton, on the 17th of July, 1859, forty years and three months after the first steamboat entered the mouth of the Missouri. On July 2, 1860, the Chippewa arrived at Fort Benton, followed a few hours later by the Spread Eagle. In July, 1868, the Tom Stevens, taking advantage of high water, ascended the river to the mouth of Belt Creek, marking the highest point reached by any steamboat, and unquestionably the most distant point from the sea which a large vessel has ever yet been able to reach by a continuous water course. This point lacks but a few miles of being four thousand miles by river from the Gulf of Mexico, and it has been reached by a single river unaided by artificial improvements."

After steamboat travel on the Missouri had been fully established and become commonplace, the boats pushed as far up the river as they could. Many of them which took advantage of the June rise reached Benton, while others might be forced to stop at Cow Island; or, if the water was low, at Carroll. From the point where the cargo was landed, it was im-

portant that it should reach its destination as soon as possible, whether that point was Benton or Alder Gulch, which we now know as Helena. For this work many freight outfits sprang up. The "Diamond R" ⟨R⟩ was organized for this purpose at Fort Benton by John C. Rowe, of St. Louis, and finally passed into the hands of Montana owners. It was a great and well organized concern, and did not wholly disappear until the railroad had begun to put an end to steamboat traffic on the Missouri.

That water transportation was threatened had been long foreseen, yet the blow did not really fall until the year 1883, when the Northern Pacific Railroad was completed. When the Union Pacific reached Ogden in 1869, a freight line was established from that point to Helena, but the distance was too great for profit, and the steamboats on the river still carried most of the freight. Ten years later the narrow gauge road—the Utah Northern R. R.—laid its tracks north from Utah, entering Montana in 1880, and finally the road, which is now the Great Northern, gave the last blow to steamboating on the Upper Missouri.

Up to that time Fort Benton had been the greatest city in all that northwestern country, and there seemed every promise that it would become a great metropolis, but with the advance of the railroad and the end of steamboating came also the end of the buffalo and the end of the fur trade, on which the existence of Fort Benton then depended. Henceforth, her only hope was to rank high as an agricultural center.

4. *Fort Stevenson, N. D.,* on the Missouri, was

established June 22, 1867, by Companies H and I, Thirty-first Infantry, under the command of Major N. G. Whistler. It was abandoned August 31, 1883, and was afterward used by the Indian Department for school purposes until about 1903.

5. *Fort Berthold,* a trading post, established in the year 1845, and said to have been named for Bartholomew Berthold, a Tyrolese, one of the officials of the American Fur Company.

6. *Arikara Indians.* The history of the Arikaras is a long one.

The French fur traders knew them as long ago as 1770. Lewis and Clark met them in 1804, when they were friendly and kindly disposed, but in 1823 some of them attacked the boats of the fur trader Ashley, killing thirteen men and wounding others. Colonel Leavenworth was sent to punish them, and after some trouble a peace was finally concluded. This fighting, the attacks of the Sioux, and two years of crop failures, led them to abandon their villages on the Missouri, and to go south and join the Skidi, or Pawnee Loups, on the Loup Fork in Nebraska. They did not get along well with the Skidi, and after two years were requested to leave them. Some of them did so, but probably not all.

In 1835 the Arikara—better known as Rees—or some of them, were camped near the forks of the Platte. These people, whether a wandering war party from the Missouri, or a section of the tribe living far from their own home, were apparently at enmity

with many people. They were accused not only of taking horses from the Delawares, but even of stealing from their friends, the Comanches. Some of them, however, joined in expeditions with the Pawnees to make peace with the Cheyennes and the Arapahoes.

In former times the Cheyennes had been on terms of friendship with the Missouri village tribes, Arikara, Hidatsa and Mandans, and frequently visited and traded with them. Colonel Henry Dodge speaks of this, and of a break in the friendship which took place a little later. He says:

"The Arikaras were formerly on very friendly terms with the Cheyennes and lived with them for some time; after the Cheyennes had concluded an alliance with the Arepahas, the Arikaras commenced stealing their horses. Still they would not go to war; they said they did not care for a few horses. The Arikaras soon after killed several whites who were trading with Arepahas. They then determined to declare war against them, and soon after the Arepahas, meeting a war party of twenty or thirty Arikaras who were coming to steal their horses, they attacked them and killed them all, not one escaping. The Cheyennes soon after met a war party of Arikaras and killed them all except one; him they told to go home and tell his people it was the Cheyennes who had killed the party. Since that period they have carried on a predatory warfare until the present time."

After this, a peace was made, but no one knows very clearly how long it lasted. The Cheyennes declare—White Bull being my informant—that about

1839 there was an Arikara village on the Beaver or Wolf Creek in the Indian Territory, and that this village was attacked by southern Indians—perhaps Kiowas, Comanches and Apaches or Cheyennes—and all its inhabitants killed. On the other hand, for many years the Cheyennes lived with the Rees or the Mandans, the latter of whom they called Earth Lodge People, for many years. Standing All Night, a Cheyenne, who died in 1869, supposed to be about a hundred years old, said that he was born in the Mandan village, and that a great many of his people lived there in earth lodges, and in all their habits conformed to the Mandans. At all events their relations with the Cheyennes, fifty, sixty or seventy years ago were close. To-day there are many Cheyenne people who have Ree blood in their veins. Two Moon, the head chief, is half Ree, and one of his names is Roman Nosed Ree. There are now living among the Northern Cheyennes several old men of pure Ree blood. These men are far darker in color than the people among whom they are living, and generally the Arikaras have seemed to me dark enough in color to justify the name sometimes given to them of Black Pawnee.

The last report of their numbers gives only 411 Arikaras at the Ft. Berthold Reservation.

7. *Gros Ventres Indians.* This is a name given to two different and unrelated tribes of Indians—the Gros Ventres of the Village, or of the Missouri, of Siouan stock, and the Gros Ventres of the Prairie, or Atsēṅa, of Algonquin stock. The ones here referred

KHUDAI KHILDI.

(See page 314.)

to are the Gros Ventres of the Village who have long been associated at or near Fort Berthold, N. D., with the Mandan and Arikara. These are a section of the Crow tribe, but the separation took place long ago. They are now very few in number. A census taken in 1910 gives only 466.

In their later ways of life they closely resembled the Mandan and Arikara, living in earth lodges and depending for support largely on agriculture. At present their numbers are about stationary.

8. *Bullboat.* The Century Dictionary defines a bullboat as a shallow crate, covered with the hide of a bull elk—certainly a very bad definition. The bullboats used on the upper Missouri up to the time of the disappearance of the buffalo there were deep bowl-shaped craft, covered, as Colonel Pickett remarks, with buffalo hide stretched over a frame of willow twigs. The bullboat was not used for traveling, but for transporting articles—one might say freight if this term could be used about the possessions of Indians—across the Missouri River. The woman who paddled it plunged the paddle into the water as far as possible ahead of the boat, and drew the paddle toward herself. Progress was slow, but the women became skillful in managing these craft, and they were extremely useful to the Village—Fort Berthold —Indians.

9. *Woodyards.* In the old days of steamboat travel on the Upper Missouri, fuel for the engines was obtained at woodyards, so-called. These woodyards

were commonly on points or bottoms where there was a good growth of cottonwood timber, and their establishment by woodchoppers was speculative. In winter or early spring two or three men would go to this place, chop many cords of wood and pile it at a convenient landing place, in the hope of selling it to the steamboats at a good price during the following summer. The men who engaged in this business were commonly known as "wood-hawks." They led lives of adventure and often of considerable danger. Hostile Indians—and in those days all Indians were hostile—were likely at any time to discover the location of these "wood-hawks" and to try to kill them. On the other hand, the "wood-hawks" were aware of their danger and kept a sharp lookout for Indian sign. Often they were provided with field glasses, and often they made a business of proceeding each day by some safe route to a high lookout point from which the neighboring country might be viewed. Still, these men were occasionally killed, and an occasion is recalled when six men, who had started out to do this work, were not heard of again until some traveler along the river found their dead bodies and their half burned cabin.

10. *Fort Buford* was a military post at the site of old Fort Union at the mouth of the Yellowstone River. It was established June 13, 1866. Fort Union, according to Maximilian, was begun in 1829. It was a large post, said by Chittenden to have been 240 x 220 feet, the shorter side facing the river, and was surrounded by a palisade of squared logs about a foot thick and

20 feet high. The bastions were at the southwest and northwest corners, and were square houses 24 feet to the side and 30 feet high. They were built of stone in two stories, the lower pierced for cannon, while the upper had a balcony. Across the square from the entrance stood the house of the bourgeois. Around the square were the houses for the employees, the storehouses, workshops, stables, a powder magazine and a reception room for the Indians. In the midst of the square was a flagstaff, and clustered about this were the lodges of some of the employees. Cannon directed toward the entrance of the fort stood near the flagstaff.

Fort Union was visited by Maximilian, Catlin and Audubon, the latter in 1843. He gives in his journal —*Audubon and His Journals, Vol. II., p. 180*—an elaborate description of the fort. Among the old-time bourgeois of this post were Mackenzie, James Kipp and Alexander Culbertson. Joseph Kipp, a well-known resident of Northwestern Montana, was at Fort Union as a boy for many years. His father was James Kipp and his mother a Mandan woman.

11. *Assiniboine Indians.* The Assiniboines, or "stone boilers" as they used to be called, are the northernmost tribe of the Sioux, or Dakota. The name by which they are called comes from two Chippewa words, *u sin'i* or *a sin' i,* and *a pwaw'a,* he cooks with or by stones. The reference is obviously to the boiling of food by the use of hot stones, a practice which was, of course, common over much of the continent, and in which the Assiniboines were

by no means peculiar. The Assiniboines separated from the Sioux before—probably a long time before—the coming of the whites, and moved north and joined the Crees, living about the Lake of the Woods and Lake Winnipeg. Alexander Henry was one of the early white men to visit camps of the plains Assiniboines in 1775, and at that time the people there were so little familiar with white men that women and children followed the traders about the camp, staring at them with the greatest curiosity. The Assiniboines were formerly regarded as one of the last tribes of the north to have procured horses. They were reported to declare that they did not want horses, which were only a trouble to them, as well as a danger. Horses, they said, constantly wandered away and had to be sought for, and were a continual temptation to their enemies to attack them. They preferred dogs, which were as useful as beasts of burden, and always remained with their owners, instead of running away. I saw the dog travois in use among them as late as 1895.

The Assiniboines in the United States are chiefly on the Missouri River near the mouth of Milk River, and at the Little Rocky Mountains in Montana. In Canada there are a number of small groups on streams of the plains, and a considerable settlement at Morley, Alberta, known as Stoney Indians. In fact, this is the common name for the Assiniboines in Canada.

12. *Major Mitchell.* Thomas J. Mitchell, of Illinois, was appointed agent for the Indians of the Milk River Agency (Fort Peck) in Montana, Jan-

uary 22, 1876, and served in that capacity until June 22, 1877.

13. This black paint of course meant that the warrior had been one of a war party which had killed enemies.

14. *Red River Halfbreeds.* In 1910 I wrote a brief account of these people, from which the following paragraphs are taken:

Scattered about as individuals or families, the Red River halfbreeds were inconspicuous and of no importance. By the more staid and methodical people of Anglo-Saxon blood, they were thought of with more or less contempt by reason of their volatile nature and their disinclination for settled habits. But, gathered together in a great camp moving toward the buffalo, or in the buffalo country, they were impressive because as a community they were unlike any of the great camps of the people whose blood flowed in their veins. In some degree they possessed the caution and foresightedness of their Caucasian ancestors, but with this was united the keenness of observation, the knowledge of the habits of animals and generally of the processes of nature which they inherited from their savage mothers.

Little more than half a century witnessed the beginning and the ending of the great halfbreed camp, but during the short time that they were, or seemed to be, a people or tribe by themselves, they were well worth studying. They were friendly and kindly in their nature, usually on good terms with white

travelers and Indians alike; though to be sure occasionally attempts at horse stealing by the Indians resulted in a collision with those people, but this was unusual. Yet it is stated that once, in the summer of 1851, they were attacked by 1,000 Yankton Sioux, when, after a long fight behind their breastworks, the halfbreeds beat off the Indians.

The Red River halfbreeds were more or less nomadic, dwelling at least for a part of the year in tents, and in many respects living much like the Indians whose blood they shared. The children of employees of the Hudson's Bay Company by Indian mothers, two classes were recognized; the French halfbreeds and the English halfbreeds. Their Celtic blood often hurried the French section into acts hostile to the Government, or to the fur company, and in some cases led to actual rebellion. The last of these outbreaks took place in 1883, and was participated in by a number of simple Indians over whom the halfbreeds had much influence. Following the putting down of this, which from its leader was called the second Riel rebellion, Riel was hanged, as were also some of the Indians.

Each spring the French halfbreeds gathered at the fort—Fort Garry—for their long journey to the plains, where they killed great numbers of buffalo, drying the meat and making pemmican for sale and for winter subsistence, and the women dressing the hides, which were sold to the Hudson's Bay Company.

The hunting grounds of the Red River halfbreeds extended from the Saskatchewan on the north, southward sometimes as far as the Yellowstone River.

They followed the buffalo wherever they were, and with them took their whole families and all their worldly possessions, transported in the famous Red River carts. Usually they made their start about the 15th of June, a part going from the Red River settlement and another part from the White Horse Plain on the Assiniboine. Once these bands traveled together, but differences sprang up among them, and between 1850 and 1857 they hunted apart.

Sometimes the halfbreeds were absolutely improvident and thoughtless of the future. Often they made surrounds and killed buffalo purely for the love of killing, taking nothing but the skins and tongues, and not recognizing that this great destruction of the buffalo must sooner or later react upon themselves.

While often they rioted in plenty, having more food than it was possible to consume, at other times they suffered from hunger. If buffalo could not be found, provisions became scarce; children cried with hunger and all complained of the lack of food. It was a feast or a famine.

Sometimes, too, they lost their animals. The horses strayed away or the oxen that belonged in the camp took the back trail and had to be searched for at great loss of time.

On the other hand, when hunting, their industry was very great. They had a splendid organization; they were at peace with all the Indians of the plains, who in early days neither wished nor dared to attack them. The approach of a hostile party to the halfbreed camp meant merely the withdrawal of the halfbreeds within the circle of their lodges, and the turn-

ing up of carts on their sides to make breastworks behind which to fight. The Indians of those days had few guns or none, and scarcely ever attacked them, except as already explained.

When the buffalo were found, if the situation was favorable, a surround was made, but on the other hand sometimes the buffalo were on the flat prairie, in which case it was necessary to approach them openly, and the horsemen could not get nearer than four or five hundred yards before the buffalo started. Then, if it was spring and the horses were thin and weak, a long chase was required to overtake the buffalo, and sometimes they might not be overtaken at all. If the horses were weak and the buffalo were in such a position that there was danger that they might escape without being overtaken, the chiefs would sometimes send out two men to approach the buffalo gradually from one side, and starting them slowly to bring them close to the camp. The young men rode at a walk or a trot parallel to the direction in which the buffalo were headed, and before long the buffalo began to trot and then perhaps to gallop.

If, riding on the left hand side of the herd, the men wished to turn them to the right, they drew away from them to a greater distance. If they wished to turn them to the left, they directed their course more toward the herd, which then in turn bent its course toward the riders, as if trying to cross in front of them. By this method of riding, the buffalo could often be drawn some miles in one direction or the other, and toward the waiting and concealed hunters.

On favorable ground, when a successful approach

was made, the buffalo, with tails on end, rushed off in headlong flight. Presently the swiftest horses began to overtake them and to disappear in the dust kicked up by the flying herd. The noise and confusion caused by the running animals was astonishing. A thick cloud of dust hung over the scene, the air was full of pebbles and sand kicked up by the hurrying feet, shots began to be heard, and presently the prairie was strewn with brown bodies.

In such a race the men rode their best horses, trained buffalo runners, as experienced as their masters in picking out the best cows, in avoiding the holes and obstacles which lay everywhere on the prairie, in avoiding also the charge of angry animals that they overtook and passed. Really, the experienced rider paid no attention to his horse and merely loaded, fired and reloaded until the chase was over. Practically all these men used muzzleloading flintlock guns. Their balls they carried in their mouths, the powder was in a cowhorn hung under the right arm. They loaded on the run, spat a ball into the muzzle, jarred the gun stock on the saddle or with the hand, threw some priming into the pan, and fired. Accidents were frequent. Horses fell or were caught by cows and killed, guns burst, sometimes men were shot. By bursting guns men lost hands, arms and sometimes even lives, and Indian hunters have told me of men falling from their horses in such a way that whipstocks, arrows, bows and even guns were driven through their bodies.

Besides the dangers of the actual chase there was always a chance that a hunter separated from his own people, working off to one side or in some concealed

place, might be attacked by Indians who, of course, at that time were eager for the guns which all the half-breeds possessed.

The hunter's horse drew up close to the buffalo, not more than two or three yards from it, and the shot was fired as the gun dropped to the level. The well-trained horse swerved away from the buffalo at the shot, and the man, prepared for the change of direction, at once began to reload. When the chase was over, the hunters returned over the buffalo-strewn prairie to identify the animals that each had killed. This was a matter of long practice, and an outdoor man can well understand how it was done.

Alex. Ross once asked a hunter how it was possible that each could know his own animal in such a melange? He answered, by putting a question remarkable for its appropriate ingenuity, "Suppose," said he, "that four hundred learned persons all wrote words here and there on the same sheet of paper, would not the fact be that each scholar would point out his own hand writing?" It is true that practice makes perfect, but with all the perfection experience can give, much praise is due to the observation of these people, quarrels being rare among them on such occasions.

Soon after the hunters had left the camp, the women started out with the carts to bring in the meat. Probably by the time they reached the killing ground, the men had returned and were hard at work skinning and cutting up the meat. The hunters worked back, skinning first the animals that they had last killed and coming the last of all to those first shot down.

The appearance of these hunters, now finishing up

their day's work by skinning and butchering their animals, was extraordinary. Covered with dust and sweat, black from the flying gunpowder, bloody up to the elbows, their faces streaked and smeared with blood and grease as they brushed the long hair out of their faces, they presented an extraordinary spectacle of ferocity, which their unfailing good nature and merry laughter and jest wholly belied.

After the meat and hides had been brought into camp, they were attended to by the women after the ordinary Indian fashion. The meat was cut into thin flakes and dried in the heat of the sun, or if the weather forbade this, hung up on scaffolds inside the lodges. The fat was saved and dried, the bones pounded up and boiled, and the fat skimmed off and placed in bladders.

The halfbreed of the middle of the last century was an excellent hunter, a splendid plainsman and able to support himself and his family on the prairie under the most adverse conditions, but he was a slow and reluctant husbandman. Coming of two races, one of which, though capable of long continued and most arduous effort and endurance of hardship, had never been accustomed to steady and continuous labor, he was willing to work until he dropped at occupations which he enjoyed, but not at all disposed to tasks he regarded as irksome.

It was between 1850 and 1870 that the Red River halfbreeds attained their greatest fame as buffalo hunters, but when in 1883 the buffalo disappeared, these hunters found their occupation gone, and knew not to what to turn to gain a livelihood. No doubt

the disappearance of the buffalo had much to do with the working up of the last Riel rebellion, and after that failed, the Red River halfbreeds as a camp ceased to exist. Many of them fled over the border into the United States and remained there, some taking up ranches and becoming useful citizens, others remaining nomads, traveling about with wagons which contained all their possessions, and from the ends of each of which protruded the family lodge poles. They camped where night found them, and lived as best they could. Others no doubt took up land in Canada, and being obliged to settle down and to remain in one place, became useful citizens of the Western Provinces of the Dominion.

The Red River halfbreed has passed away forever. With his picturesque lodge, his complaining cart, his troop of dogs, his wife and daughters clad in silks, which were stained with buffalo grease and soiled with the dust of the prairie, he remains but a memory.

15. *Pemmican,* under one name or another, was a compact form of nourishment, made by most of the prairie Indians. A warrior setting out on foot to make a long journey into some enemy's country often had the many pairs of extra moccasins that he carried stuffed with pemmican, or, if not with pemmican, with pounded dried meat.

Among the Sioux and the Cheyennes who did not make pemmican in such quantities as did the more northern Indians, the dried meat was often pounded with a small hammer on a smooth stone anvil. This anvil stood in the middle of an oblong or circular

piece of rawhide, on which the pounded shreds of meat fell, to be gathered up from time to time, and put in a sack.

As made by the Northern Blackfeet, "The meat was dried in the usual way, and for this use only lean meat, such as the hams, loins and shoulders was chosen. When the time came for making the pemmican, two large fires were built of dry quaking aspen wood, and these were allowed to burn down to red coals. The old women brought the dried meat to these fires and the sheets of meat were thrown on the coals of one of them, allowed to heat through, turned to keep them from burning, and then thrown on the flesh side of a dry hide that lay on the ground nearby. After a time the roasting of this dried meat caused a smoke to rise from the fire in use, which gave the meat a bitter taste if cooked on it. They then turned to the other fire, and used that until the first one had burned clear again. After enough of the roasted meat had been thrown on the hide, it was flailed out with sticks, and being very brittle, was easily broken up and made small. It was constantly stirred and pounded until it was all fine. Meantime, the tallow of the buffalo had been melted in a large kettle and the pemmican bags prepared. These were made of bull's hide and were in two pieces cut oblong, and with the corners rounded off. Two such pieces sewn together made a bag which would hold a hundred pounds. The pounded meat and tallow—the latter just beginning to cool—were put in a trough made of bull's hide, a wooden spade being used to stir the mixture. After it was thoroughly mixed, it was shoveled into one of

the sacks held open, and rammed down and packed tight with a big stick, every effort being made to expel all the air. When the bag was full and packed as tight as possible, it was sewn up. It was then put on the ground, and the women jumped on it to make it still more tight and solid. It was then laid away in the sun to cool and dry. It usually took the meat of two cows to make a bag of one hundred pounds; a very large bull might make a sack of from eighty to a hundred pounds.

"A much finer grade of pemmican was made from the choice parts of the buffalo with marrow fat. To this dried berries and pounded choke cherries were added, making a delicious food which was extremely nutritious. Pemmican was eaten either dry as it came from the sack or stewed with water." *Blackfoot Lodge Tales, p. 206.*

The word *pemmican* comes from the Cree language, the original term being *pimikan,* which is said by some to mean a bag full of grease and pounded meat, or by others to mean, manufactured grease. The root is *pimu* or *pimiy,* which means grease. The work of collecting grease by pounding up the bones of animals into small pieces, boiling them and skimming off the grease, which was then put in a vessel to cool, in primitive days occupied much of the time of old women.

This is only one of a large number of Indian words which have been adopted into the English as spoken in the United States.

16. *Dr. Southworth.* Dr. John W. Southworth

was physician at the Fort Peck Agency from July 1, 1876, to June 22, 1877. Nothing is known of him or of Major Mitchell since they left the Indian service.

17. *White Beaver Creek.* Tributary of Yellowstone from the north, lying chiefly in the eastern part of Sweet Grass county, Montana.

18. *Burial Scaffolds.* The platforms were commonly formed of long willow twigs strung together on sinews, and supported beneath by two or three poles running at right angles to the twigs or lengthways of the body. These are made in the same fashion as back-rests or sleeping mattresses. These platforms were sometimes placed in trees or were lashed to four upright poles on the prairie.

Good figures of the Dakota burial platforms, taken from Yarrow's Mortuary Customs, may be found in Bull. 30 of the Bureau of Amer. Eth., p. 940.

The mortuary customs of the Indians were very various, and in different parts of the country there were different practices. Thus we have stone graves made of slabs of flat stone, arranged in box-like form; we have mummies from Alaska and from the dry southwest; in portions of the northwest cremation was practiced, the ashes sometimes being kept in urns and sometimes being scattered, and besides there is the aerial sepulcher described by the author and also aquatic burial. Besides that, the dead were often put on tops of hills, not covered over at all, or on hills, with stones piled over them. The whole subject has

been quite fully treated by Dr. H. C. Yarrow in his paper on Mortuary Customs, published as part of the First Annual Report of the Bur. of Amer. Ethn. in 1881.

The Indians of the plains had no foolish prejudices against being eaten by animals. Brave men often expressed the hope that when they died their bodies might be left out on the prairie where the birds and the animals might feed on them, and they might thus be scattered far and wide over the prairie. (See *Pawnee Hero Stories and Folk Tales, p. 46.*)

19. *George Clendenin, Jr.,* the son of George Clendenin, was born in Washington, D. C., about 1843-44. His father was an old soldier, after the Civil War in charge of the Rock Creek Cemetery near Washington.

Colonel Clendenin came to Montana in 1869 or 1870 and to Fort Benton in 1870. He was a man of high ideals, who believed that he could make money in trading with Indians without carrying a stock of liquor. He purchased from T. C. Power & Bro. a stock of goods for Indian trade and established a trading post at the mouth of the Musselshell. In 1871 he sold to L. M. Black an interest in the business, and T. C. Power retired. The fact probably is that Power furnished the goods on credit and Black took his interest, though the business was probably done in Clendenin's name. In the spring of 1872 Black brought a suit for dissolution of the copartnership, and the litigation continued until 1877. Clendenin took his stock of goods from Benton down the river in Mackinaw boats. The concern's chief trade was for buffalo robes.

IVAN WITH ROEBUCK HEADS.

(See page 314.)

After the Indian trade at the mouth of the Musselshell had proved unsatisfactory, Clendenin bought out Black and moved his stock of goods up the Missouri River to Carroll. He traded there for three or four years, after 1874, before closing out. It is my impression that in the year 1875 he had a small trading post with a very slight stock of goods at the mouth of the Judith River, which he called Fort Claggett. This was to catch the trade of the wandering Gros Ventres of the Prairie, with whom the lower valley of the Judith was a favorite camping place.

After closing out the business at Musselshell, Clendenin became interested in the Barker Mining District in the southeastern part of Cascade County, Montana, and built there a smelter in which Power and others were interested. Clendenin was interested in the mines of this section and operated one known as the Clendenin Lode. While he was inspecting this in company with Louis Heitman and others, in 1882, a tunnel caved in and killed him.

20. *John J. Healy* was for many years a noted character in Ft. Benton and the country to the North. He was an Irishman by birth, who as a young man had enlisted as a soldier and been stationed in the West. After his discharge he mined and traded, and worked in Northern Montana, where he was most highly respected and very successful. He it was who organized the famous Ispitsi Cavalry, and who kept order in that northern country until the Northwest Mounted Police came into it. After a time Montana and Alberta became too crowded for Healy, and he

went to Alaska, where at once he impressed his fellows as he had done in Montana. He died only two or three years ago. He was a man whose life should have been written, and it was hoped that this task would have been undertaken by Edwin Tappen Adney, of Nova Scotia.

"Johnny" Healy feared neither man nor devil; and to this day stories of his daring linger in the northern country.

21. The destruction of big game for the hides, which was taking place in 1876, is hardly to be comprehended by those who did not see what was going on in those early years. Buffalo, elk, mule deer, and antelope were slaughtered by thousands without regard to age or sex or season, and of the vast majority of the animals killed, only the hide was taken. During the winter of 1874-1875 it was estimated that in the valley of the Yellowstone, between the mouth of Trail Creek and the Mammoth Hot Springs, not less than 3,000 elk were killed for their hides alone. Buffalo, mule deer, and antelope suffered as much or more than the elk. Travelers through Montana territory in the summer of 1875 constantly came on places where buffalo carcasses were strewn everywhere, and it was common to pass a skin-hunting outfit, whose wagons were piled with the flat, dried hides of deer, elk, antelope and sheep, as high as a load of hay. This went on, as has been said, all through the year, and the females of these hoofed animals were as readily killed in spring or summer as at any other time. Owing to the sparse settlement of the country

and the enormous abundance of game animals, the destruction was beyond belief.

At certain points near army posts, efforts were made by officers to drive skin hunters away, and often with success, and the general sentiment of the better class of frontiersmen was against the butchery. The game laws of the territory existed only on the statute books, and people generally were not sufficiently interested to make any effort to have the laws enforced. They were not supported by public sentiment. The result of this slaughter was that the game passed out of existence.

22. *Ft. Benton.* This famous trading post was built by the American Fur Co. about 1846. It had predecessors in the neighborhood, Ft. Mackenzie and Ft. Brulé. It was long the most famous of the fur trading posts, partly because it stood at the head of the navigation on the Missouri River. Fort Benton, like others of the sod and adobe forts, finally went to ruin under the weather, and little of it now remains.

1877.

23. *Nez Percé War.* Much literature has been printed on this subject, but a good brief account, so far as the Yellowstone Park is concerned, will be found in General Chittenden's book. See Note 28.

24. While perhaps the killing of the Nez Percés women may have had something to do with the changed attitude of the warriors of the tribe, it is

believed that the real cause of their bitterness was the fact that a number of the Nez Percés' dead were scalped by Howard's troops. There has been some controversy as to how this came to be done. Certainly it was against the orders issued by General Howard. Very likely the scalps were taken by the Bannock scouts employed by Howard, and it may very well be that some of his white civilian scouts had a part in it. That scalping was forbidden by General Howard, and that the act was much regretted by him, cannot be doubted. It is probable that this is what cost the lives of all the civilians that were killed in the Nez Percé War.

25. John Bean was born in Maine, and as a small boy moved with his family to Wisconsin. As soon as he became large enough to carry a gun, he became so enthusiastic about field sports that he could not be induced to go to school. When only a boy, he went West, and in early manhood dropped out of touch with his family, and was not again heard of until he was a Government scout at Ft. Ellis, Montana. Afterward he settled on a ranch near Bozeman and went out with eastern hunting parties. About thirty years ago he was out with the Barings, and with Chas. R. Flint. About 1903 he moved from Montana to San Jose, California, where he now resides at 389 North Whitney Street. He is said to have prospered in business, which has to do with automobiles, and to be quite well off.

26. *Baronett's Bridge,* the first bridge across the

Yellowstone River in the Park, built in 1871 by C. J. Baronett, one of the earliest occupants of the region. It was formed by felling tall trees across the river. Partially destroyed by the Nez Percés Indians during their passage through the Park in 1877, it was afterward repaired.

C. J. Baronett, sometimes known as "Yellowstone Jack," and more commonly as "Jack Barnet," was famous in the early days of the Yellowstone Park. He was born in Glencoe, Scotland, in 1829, and following the traditions of his father went to sea early in life. He is said to have been on the coast of Mexico during the Mexican War, in China in 1850, in Australia in 1852, and in Africa in 1853. His wanderings in California, Africa and Australia were in search of gold. In 1854 he was in the Arctic Seas as second mate of a whaling vessel, and returned to California in 1855; was courier for Albert Sydney Johnston in the Mormon War; prospected later in Colorado and California for gold; was scout in the Confederate service; was in Mexico with the French under Maximilian; returned to California in 1864; returned to Montana the same year; later settled in the Yellowstone Park, where in 1870 he found the lost T. C. Everts; was in the Black Hills in 1875, and a scout in the Indian wars of 1876-1878. The story of his life, if it could have been written, would be interesting reading.

27. The falls are actually about 310 feet.

28. The Interior Department at Washington has

published a fairly complete bibliography of the Yellowstone National Park, but by far the best account is given in General Chittenden's book, "The Yellowstone National Park, Historical and Descriptive," by Captain Hiram Martin Chittenden, U. S. A., Cincinnati, Ohio, The Robert Clark Co., 1895, pp. 397, illustrated.

Of unusual interest also is the privately printed diary of the Washburn Expedition to the Yellowstone and Fire Hole Rivers in the year 1870, by Nathaniel Pitt Langford.

Among the early and scarce articles which were written to bring its wonders before the public were two in Scribner's Magazine, Volume II. (May and June, 1871), by the late Mr. Langford, and one in Volume III. (November, 1871), by T. C. Everts, giving an account of his experiences while he was lost for thirty-seven days during the expedition of 1870.

Gen. George S. Anderson, whose long service and splendid work as Acting Superintendent of the Park will always be remembered, possesses what is probably the most complete existing collection of Yellowstone Park literature.

29. Now known as Hayden Valley.

30. In early days the open country in the Yellowstone Park was a great range for the antelope, and, as Colonel Pickett remarks, they were sometimes seen in the timber. We commonly regard the antelope as a frequenter only of open country, yet most people who have traveled much in the mountains have seen

them in the timber, or among it, though perhaps never in very thick timber. In old times, if one entered a park in the mountains where antelope were feeding, they would be likely to try to escape through an opening leading from the park, rather than to pass through even a narrow strip of pine woods. On the other hand, I have seen them feeding in a river valley so heavily dotted with large clumps of willows that in fact the tree or shrub covered area exceeded that of the open prairie land.

Because of its high altitude the Yellowstone Park was only a summer range for antelope, and at the approach of winter the herds migrated to the lower land, great numbers of them passing down the valley of the Yellowstone River, and so out on the plains. In spring again they worked up the valley and reentered the Yellowstone Park, where usually the young were born. As soon as the valley of the Yellowstone River became more or less settled, this annual migration resulted in the slaughter of great numbers of antelope, and a marked decrease in the number of those summering in the Park. A dozen or fifteen years ago the northern end of the Park was fenced, and by the sowing of alfalfa, efforts were made to keep the antelope in the Park. These efforts have been only moderately successful, and the number of antelope found in the Park has dwindled from thousands to perhaps not more than five hundred. They seem to be steadily decreasing.

1878.

31. Some years before—in the summer of 1875—this precise country had been passed over by a small expedition under the command of Col. Wm. Ludlow, then Chief Engineer, Department of Dakota. His report to the War Department of a "Reconnaissance from Carroll, Montana Territory, on the Upper Missouri, to the Yellowstone National Park and Return" was published by the War Department, in 1876. It contains reports by Colonel Ludlow and two of his assistants on the mammals, birds and geology of the region passed over, and of two or three side trips. There are plates of a number of newly discovered fossils, and maps of what was then known of the region where Colonel Pickett hunted later.

Col. Wm. Ludlow, as is well known, served with most distinguished honor during the war with Spain, became Major General, and died a number of years ago. He was one of the most brilliant, attractive and high-minded officers that ever served the United States, and his untimely death was deeply lamented.

The town of Carroll was situated in a broad bottom on the south bank of the Missouri River, just south of the Little Rocky Mountains, and three or four miles east of the mouth of Little Rocky Mountain Creek. For several years it was a place of some importance. There were a number of trading stores there, one of them at one time kept by Joe Kipp, and around these stores had grown up a very small settlement. In 1875 it was a typical new western town.

Carroll was one of the points to which the Indians came to dispose of their robes during the last days of the buffalo in Northern Montana, and Bloods, Blackfeet, Piegans, Crees and Red River halfbreeds resorted there in numbers at the season for trade.

When the water was low, Carroll was sometimes the head of navigation on the river, for boats could reach Carroll when they could not get up to Cow Island. About 1874 The Diamond R built a road from Helena to Carroll, which thus became an important freight point for Northern Montana. There was much travel over this route by stage and freight teams, and the long road winding up the gumbo hills was well worn.

The high prairie and the isolated mountain ranges nearby were full of game, and sometimes the buffalo used to come down into the river bottom and almost invade the town, calling out the scanty population with all their firearms, to drive them away.

Standing alone on the border of a debatable ground, which was run over by a dozen tribes, some from west of the mountains, and others from down the river and from the north and the south, Carroll suffered many things because of the Indians. I reached there by boat one scorching day in 1875 to find that the night before Sioux had come into the town and taken every horse it contained, except one cripple, which was unable to travel.

Carroll long ago disappeared, for the river, changing its course, wore away the bottom, and presently what remained of the town fell into the muddy Missouri. It is still remembered by a few people as one

of the temporary centers in Montana of the last fur trading days.

32. There were not a few mountain sheep on the rough buttes of the Judith, Snowy and Little Belt Mountains, though these would hardly be seen by horsemen hunting on the plains below.

33. As already said, the river steamers procured their fuel from wood yards scattered along the river at various points between Painted Woods and Benton. A wood-chopper hired two or three hands, built a cabin in some bottom where the cotton wood timber was large and easy of access, chopped there through the winter, and in summer disposed of his pile of wood to the steamboat captains going up and down The men who ran these wood yards and those who chopped for them were the "wood-hawks" already described. They took their lives in their hands when they adopted this vocation, and yet, after all, comparatively few of them were killed by the Indians. They were usually safe enough as long as they kept their wits about them, and were prepared for danger, for in the cabins in which they lived they had forts which were impregnable to the savages. Sometimes, however, they grew careless, and because they saw no Indians, thought that none were about, and so were surprised and killed.

They were migratory population who chopped wood in late winter, spring and early summer, hunted in fall and wolfed—that is, collected wolf hides—in winter.

Pike Landusky was one of these, who afterward

took to prospecting in various parts of the mountains. On the south side of the Little Rocky Mountains he struck some prospects believed to be very good. A result of this find was that some years later the United States Government sent out a commission to purchase a portion of the Little Rocky Mountains from the Belknap Indians — Assiniboines of Siouan stock, and Gros Ventres of the Prairie, of Algonquian stock. Not far from the site of these prospects was built the town of Landusky. It is said that of late years the mines have been very productive.

Pike Landusky was born in Pike County, Missouri, in 1847. He came to Montana in 1866, perhaps as a part of that migration formerly spoken of in jocular fashion as "the left wing of Price's Army." For several years after reaching the territory he mined at Pioneer Gulch with varying success, but at length moved to the Missouri River near Rocky Point and became a "wood-hawk."

The following notes on his career are furnished by an old friend, Colonel Healy, of Montana:

"In the autumn of 1877, Landusky and a man known as 'Flopping Bill,' a more or less notorious character, went down the river on a hunting and trapping trip. Near the mouth of the Musselshell River the soldiers arrested them for having in their possession a Government mule. They were taken to Miles City, tried and acquitted. After an absence of twenty-seven days, they returned to their camp on Squaw Creek and found the mule still alive. He had been left there tied to a log. This log had been nearly eaten up by the animal.

"Soon after this, with a number of others, Landusky became interested in a trading post on Flat Willow. Among those at this post were Joe Hamilton, Billy Jackson and a number of others." The story has been told in *Forest and Stream* and was called the Woman from Sitting Bull's Camp. The place is now known as Maginnis' Crossing.

"In 1882-83 the Piegans, Bloods, Crees and Crow Indians were camped on Flat Willow after buffalo, which were there in thousands. One day some whiskey traders came to the Indian camp, and many of the Indians became intoxicated. It is reported that old White Calf when drunk shot Pike through the jaw. Pike, blinded by blood and anger, shot at the first thing he saw, which proved to be White Calf's wife. When the woman fell, White Calf was frightened, mounted his horse and rode away to camp and the fight was ended. Pike and Hamilton did a big business trading with the Indians. In 1883, Pike moved to Maiden, a mining camp near Fort Maginnis and engaged in mining. He married the widow Dessary, who had five children. In the fall of 1883 Pike and Dutch Louis struck the Alder Gulch placer mines in the Little Rockies, which proved to be a good camp. In 1888 Pike was ranching on the Missouri River at Hawley Bottom, but, after a time, concluding that he was not cut out for a rancher, he moved back to the mines, and founded the town of Landusky. He built a fine residence, leased the August mine, and in a short time took out thirty-five thousand dollars in gold.

"The Curry gang of outlaws made their headquarters in or near Landusky and were jealous of Pike.

They managed to pick a quarrel with him in Jew Jake's saloon, and he was killed by Harvey Logan, chief of the band. Logan escaped and was never arrested for the crime. The widow and her children are now raising fruit on the Columbia River, Oregon.

"Pike Landusky, a true friend and a man of many sterling qualities, deserved a better fate than to be murdered by a band of outlaws."

Of the horse purchased by Colonel Pickett, "Billy" Hofer says: "He was named Pike, and was the only horse I ever saw who actually hunted, virtually independent of the man who was riding him. Often he would discover game before the rider and try to make his rider understand that there was something in sight. He was the only horse I ever saw who would try to keep his body hid; he would sneak up behind a tree and peep out to one side, almost like a human being. He used to like to find choice feeding places a little to one side of the main band. He seemed to like to keep such finds to himself. Now and then his propensity for being secretive would cause him to lose the band. I have seen him, as soon as the horses were turned loose, feed away from the others till he got behind a bushy tree, and then work out of sight, keeping the tree between him and the other horses. He would look back to see if the others were watching him or following him; then he would slip behind a clump of little trees or round a hill, occasionally peeping out to see if other horses were in sight; if they worked away he would be obliged to follow, because he did not want to be left entirely alone. Several times when he lost the other horses at night

he came galloping around the camp trying to find them. Later Colonel Pickett purchased another horse that he named Red. This horse's sight became slightly defective; Pike took him up as a companion, and they were partners from then on. Sometimes both would get lost from the other horses. Once it was necessary to go back to the last camp to find them."

34. Tendoy was the chief of a band of Bannocks and Shoshonis and Sheepeaters. They used to live in the Upper Lemhi and Birch Creek country of Western Montana. Tendoy was a fine Indian; had always been friendly to the whites, and it was said had received a special pension, by Act of Congress, in acknowledgment of his services and influence in keeping his people from taking sides during the Nez Percé war, for the Nez Percés did everything they could to induce the Lemhis to join them. Tendoy was a high-class man, frank, intelligent and witty, with a natural dignity that was very impressive. He died early in 1907, aged eighty-three. Even when he was eighty years old his natural force was not abated, and De Cost Smith, who knew him well, tells of his riding, at that age, a bucking horse, which threw him once, but the old man rose to his feet, remounted and rode the horse. No one was present at the time, save Mr. Smith, but that night Tendoy told his fellows of the incident and laughed with them about it.

After Tendoy's death, the settlers of Idaho, in recognition of his services, subscribed funds toward the erection of a monument to his memory.

35. Armell's Creek was named after an old French

trapper from St. Louis, whose Christian name is forgotten. He was early in the western country, and in 1859 was Government interpreter at Ft. Benton.

At certain points in the cut banks along the course of this stream are seams of the red clay, which the primitive Indians used for paint. An opportunity to collect this clay was never neglected when it offered. The Blackfoot name for Armell's Creek is *et tsis ki ots op,* meaning, "It fell on them," from the following circumstance: A long time ago, as a number of Blackfeet women were digging in a bank near this stream, for the red clay, which they used for paint, the bank gave way, and fell on them, burying and killing them. (*Blackfoot Lodge Tales, p. 61.*)

36. The peak climbed must have been either Black Butte or Cone Butte. From either of these points the view is extensive. Cone Butte is a trachyte hill about 3,400 feet above the Missouri River. The Little Rocky Mountains and the Bear Paw Mountains, although distant, are very conspicuous, and the prairie below, dotted as it was then with feeding game and now with cattle and prosperous farm houses, was and is a goodly sight. At that time this commanding position was well appreciated by the Indians, who used it as a lookout. The Judith Basin was in fact at that time a sort of debatable ground visited by Crows, Bannocks, Snakes, Sioux, Gros Ventres of the Prairie, Assiniboines, Blackfeet and Red River halfbreeds. Many of these tribes were at war with one another, and most of them, even though on friendly terms, were distinctly suspicious of each other.

Cone Butte and Black Butte or Buffalo Heart Mountain, as it was also called, are both volcanic masses thrown up through the prairie as so commonly occurs in this neighborhood. A break in the hills at the head of one of the forks of Box Elder used to be called Ross's Cut-Off and gave passage to frequent parties of Indians.

Many years ago, in buffalo days, I climbed to the top of Black Butte and found on it a lookout shelter, built by Indians. It was composed of blocks of trachyte, laid in two rows, perhaps two feet apart, and these two rows supported flat slabs of the trachyte, which would keep off rain or snow. A bed of pine boughs covered the rocks which constituted the floor of this shelter. It had been in use within a few weeks, for the pine needles in it were entirely fresh. At this particular time Sioux were traveling through the country and taking horses and pretty much anything else that they could get.

37. A. L. Reed came into Montana from Colorado in 1868, and from 1868 to 1871 was Indian agent at Ft. Browning on the lower Milk River, near where Dodson Station on the Great Northern Railway now is, opposite the mouth of People's Creek. Ft. Browning was the Indian agency for the Gros Ventres of the Prairie, and some of the Assiniboines, and was afterward superseded by Ft. Belknap, on the south side of Milk River, opposite the present town of Harlem. Reed was popular with the upper Gros Ventres Indians—of Algonquin stock—and, after losing his position as Indian agent, established with

CROSSING A SNOW FIELD.

(See page 314.)

Bowles—under the style Reed & Bowles—a trading post on Big Spring Fork of the Judith River. This trading store was in operation in 1875, and at the same time there was a small branch store at the mouth of the Judith River, known as Ft. Claggett. About 1909 Reed was in a soldiers' home near Los Angeles, California. He died in Seattle, Washington, in the summer of 1912.

38. Lovell H. Jerome graduated from West Point in the class of 1870, and for some years saw service on the plains. At the battle of the Bear Paws, at the close of the Nez Percé War, he was captured by the Nez Percés, and held in their camp until exchanged for Chief Joseph, who was in General Miles' camp. Mr. Jerome is a resident of New York City.

39. Many Indian tribes are forbidden by their traditions or beliefs to handle the skins of certain animals. The Blackfeet and perhaps the Crows may not—except in the case of certain persons possessing peculiar powers—use or handle the skin of a bear. In the same way the Cheyennes may not dress the hide of a wolf or a beaver unless certain ceremonies have previously been performed.

40. The custom of the blood feud no doubt was universal among all Indians, but usually the killing of a relative might be compounded for by the giving of presents. On the other hand, in the heat of a quarrel, two or three persons might be killed before

there was time to think about it. Among the Blackfeet, the Cheyenne and Columbia River Indians, and probably all other tribes, if there was time for thought, satisfactory gifts would always settle the matter. I have known a number of Indians who in a quarrel, or while intoxicated, have killed their fellow tribesmen, and I have not met with a case where anyone has been killed in revenge. On the other hand, this unquestionably sometimes happened. In certain tribes it was sometimes necessary for a chief to kill a less important man in order to uphold his own authority. How this was treated by the public opinion of the camp depended on the tribe where the occurrence had taken place. Among the Piegans, it is reported that this has been done a number of times, and that the man killing his fellow suffered no loss of prestige. On the other hand, the case of old Little Dog, who had been obliged to kill some of his fellows, and was finally himself killed by his tribesmen, at once suggests itself. Among the Cheyennes, such leading warriors as Porcupine Bear, Gentle Horse and Old Little Wolf had each, through alcohol, accident or ill temper killed a member of the tribe, and all of them immediately lost all influence and were ostracized. A note on this point west of the mountains will be found in Ross, *The Fur Hunters of the Far West, Vol. 1, p. 9.*

41. Now known as Piegan postoffice.

42. The flesh of the bull elk during the rutting season is tough, strong and hardly fit to be eaten, but

the meat of cows, calves and spikes (young bulls) is very good, and by many is preferred to all other game.

43. T. Elwood Hofer says as to this: "From thirty-eight years' experience in the mountains of the West, and four trips to Alaska, I am pretty certain that neither the grizzly bear nor the Alaska brown bear or Kadiak bear breed annually. There may be exceptions to this rule. I have seen a female grizzly with apparently two-year-old cubs and young cubs with her. I have often seen female grizzlies with three cubs; of course, one may be mistaken by not seeing the same bears every year; we can only judge from bears that we see in the Yellowstone Park, from year to year, and think we recognize the same animal. If they would kindly let us mark them, we could keep better track of their habits, and ways of life."

It is now believed by many naturalists that the female of the grizzly and great brown bear does not bear young every year.

44. General Miles' fight with the Bannocks was in some hills near Clark's Fork of the Yellowstone. Here Captain Andrew S. Bennett was killed, and the little stream carries his name to-day. The hostile Bannocks who escaped at the first attack later attempted to join Tendoy's band. Tendoy had no sympathy for them, and later turned them over to General Miles at Fort Keogh.

45. It is evident that Colonel Pickett sent into

Martinsdale at the Forks of the Musselshell, where about that time a postoffice had been established.

46. Crazy Woman Mountains—now called usually Crazy Mountains. At that time this was a great game country. Thousands of elk, deer, white and blacktail and antelope ranged the country, not to mention the mountain sheep, which were abundant on the southern slopes of these mountains and on to the broken banks of the Yellowstone. This was a favorite hunting ground for Bannocks, Shoshonis, Crows and sometimes war-traveling bands of more distant Indians, who considered the aforementioned Indians as their enemies, and to be attacked if this could be done with prospect of success.

A peculiar thing about these mountains is that there is no pass through them; the heads of all the streams are very abrupt, with cliffs on both sides of the ridge. White-tail deer were extremely abundant on all the streams heading in these mountains. During the summer there was not much game around, as it went into the higher country of the main range. Now scarcely an animal can be found here.

47. Many plains streams have the same name in different tribes. Thus the Yellowstone River is called Elk River by most of the northern plains tribes, from the great abundance of elk formerly found in its valley. What we call the Musselshell River is a translation of the Cheyenne name *Ihko wom' iyo' he,* from the abundance of the unios found in its bed. Crazy Woman's River is from the Cheyenne word,

implying light-headedness, lack of balance, likelihood to do foolish things. It is not nearly so strong as the word *mas san' e,* meaning crazy or foolish. The Sioux are said to have given this name to this stream, and it was adopted by other tribes. [See *American Anthropologist (N. S.), Vol. 8 No. 1, p. 15, January-March, 1906.*]

48. This freight outfit which belonged to Benjamin Fridley, of Bozeman, was camped, as said, at the spring, less than half a mile from the Gap. The horses had been turned loose and the night-herder was rolling himself a cigarette at the camp-fire, when they all heard the stampede of the horses away from the Gap, the bell constantly sounding fainter. Fridley, who was familiar with Indian ways, seized his Winchester and ran in the opposite direction, in order to reach the Gap as soon as possible. By the time he had reached there and gotten his breath, he heard the horses coming. The Indians had made a long circle around the camp, expecting to be followed, but not to be headed off. As soon as the horses got close, Fridley began to fire his rifle and to yell. He put in the shots so rapidly that he turned the horses back to camp, and the thieves left them, and of course were never seen. By that time the horses were somewhat willing to be caught, and a careful guard was kept over them until they reached the Yellowstone; in fact, until Bozeman was reached. Had the Indians known the valuable freight of these wagons, they would perhaps have tried to come in force strong enough to have killed the men and captured the whole outfit.

The freight consisted principally of rifles and ammunition that had been shipped up the Missouri River with the expectation of landing it at Fort Benton. The low water in the river obliged the steamers to unload at Carroll.

1879.

49. Catlin had some ground for alarm, as there had been war parties of Indians through the country every year previously. They were likely to steal horses, if doing no other damage, and to lose one's horses so far from civilization, or where other horses could not be had, was a serious matter.

50. The three young bulls mentioned as having not dropped their horns were probably spikes, or two-year-olds. As is well known, the young bulls always carry their horns much later than the older ones.

51. Except the white-tail deer, the game mentioned as having disappeared was probably all moving south, toward its summer range in the mountains to the south and on both sides of the Yellowstone River, and into the Yellowstone Park. This range is now all fenced in, and not available for game, which is compelled to stay in the high mountains, and usually winters at an altitude of from five to eight thousand feet. The white-tail deer do not usually migrate to the same extent as the other animals. The black-tail—or mule deer—commonly migrate a little before the elk.

52. Deer or the ordinary wild ruminants of the plains or the mountains do not fear a horse. In early days antelope were often seen feeding among horses and cattle on the prairie, just as at an earlier date they had fed among the buffalo, with which often they went to water and moved about over the prairie. A deer near or among the horses in the early morning was formerly a common sight, and in the high northern Rocky Mountains I have known of cases where moose were found feeding among the horses in the morning. Every man who has traveled much with a pack train through an elk country in autumn has had the experience of having the bull elk try to drive off his horses.

It is well known also that wild animals will often closely approach some object which, under ordinary circumstances, would alarm them—provided this object remains motionless. As I once said elsewhere, the deer recognizes danger only in life, and life only in motion. *Sport With Gun and Rod, p. 135.* This seems to be true of animals generally.

53. Photographs of grouse in captivity have shown how the sound of drumming is produced. (*American Game Bird Shooting, p. 145.*)

54. This is one of the many instances supporting the belief that grizzly bears do not have cubs each year.

55. This is undoubtedly an error of observation, since mountain goats (*Oreamnos*) are not found in

this region. What Catlin saw may have been young male mountain sheep or perhaps ewes of that species. On the other hand there are two perfectly good records for the white goat far south of this region, in Colorado, as I pointed out in a paper published many years ago in *Forest and Stream.* One of these was killed by John Willis, a former hunting partner of Colonel Roosevelt, and only a few years ago residing at or near Malta, Montana.

Goats have been traditionally reported from mountain ranges near the Hoback River, but so far as known, none have ever been taken there. On the other hand, they are found in Idaho not very far to the west and northwest of that section.

56. This was known among the hunters as Elk Lake, and was much frequented by elk, deer and mountain sheep. To-day it is inclosed in a meadow belonging to a ranchman named Smith.

57. The south fork of this stream is known as Sunlight, and the valley above the cañon is called Sunlight Basin, and occupied by ranchers.

58. James Walters' cabin was on the east bank of the Boulder near where the Northern Pacific road now crosses that stream. His wife may have been a Crow woman, but I think she was a Piegan. Walters had lived with the Indians a great many years. He was always a little afraid the Bannocks would kill him in revenge for his having killed a Bannock Indian many years before. When the Bannocks under Ten-

doy and Major Jim were near, he often disappeared for a time. The present town of Big Timber is on a high bank, west of where his cabin was.

59. The stage station was on Big Timber, which comes into the Yellowstone from the north side, nearly opposite the mouth of the Boulder. At one time these streams had the name of Cross Rivers.

60. Though quite unusual, deaf mutes occur among the Indians more or less frequently, and I have seen them occasionally in different tribes. As might be expected, they are all extremely able sign talkers; their ability to use their hands and their quick intelligence being a partial result of their inability to talk. Milo's wife was known as "Dummy." She was a very rapid and efficient sign talker, a very good cook, generally cheerful and withal a willing and rapid worker.

61. This was Benson's Landing, about two miles below the present town of Livingston.

62. This stage station was Hopper's, where fresh horses were taken.

1880.

63. George Herendeen was one of the civilian scouts serving with Terry in the campaign of 1876, and was with General Custer during his scouting up

the Rosebud in June of that year. With the other civilian scouts, he was detailed to accompany Reno when that command was sent off to attack the Indian camp from the upper side, while Custer was to attack it from the lower.

Many of these civilian scouts, as Charles Reynolds, Obadiah, the negro, and Bloody Knife, the Ree, were killed, near the crossing of the Little Big Horn, in the effort to check a charge of the Indians on the panic-stricken troops. Herendeen survived, to make the trip with Colonel Pickett, and in 1910 was working in the Glacier National Park at the office of Major Logan, the superintendent.

1881.

64. The respect felt for the bear is common to many North American tribes, and a good example of the feeling toward it and the ceremonial manner in which it is treated is given in the *Travels of Alexander Henry,* p. 143 (New York, 1809). The Indians of the Northern Plains in old times greatly feared the grizzly bear, though in later days men were willing to attack, fight and kill it, but usually with apologies. The Blackfeet and Cheyenne would make no use of the flesh or hide of the grizzly bear. Women will not cook nor eat its flesh, nor dress the hide. They seem to fear that the spirit of the bear may injure them and usually no persuasion will induce them to undertake the work of tanning a hide. Yet this feeling is not universal among the Indians, and in some

tribes where the bear is tabu, it is possible to find a captive woman from another tribe who does not fear the bear, and is willing to do the work. Certain medicine men are at liberty to wear about the head a fillet of dressed bear hide, and of these some may sit upon a bear robe; but these are few. Many people do not feel free to speak the bear's name, but instead call him "sticky mouth." Among the plains Indians I have not heard of any story implying the descent of people from the grizzly bear.

65. This is Bennett's Creek, where Captain Bennett was killed in 1878. See Note 44.

66. They make the noise partly with the throat, and do it either inhaling or exhaling the air. Though not a loud noise, the sound seems to carry a long distance. It can be heard three-quarters of a mile away. I know of no sound or cry made by an animal that it can be compared to.

A matter that is scarcely, or not at all, mentioned in books on natural history is the early life of the young calf elk. As Colonel Pickett says, the cow elk keep close together for protection, and usually the calves do not keep close to their mothers, but herd together in a bunch by themselves off to one side of the cow, much as young buffalo calves keep by themselves at a similar age. Sometimes these calves make a great noise, calling almost constantly, either to each other or for their mothers. The call is not a bleat, nor a bawl such as is uttered by the domestic animal of the same age, but rather a shrill, high-pitched

scream, and when a number of calves are uttering it, practically at the same time, they make a great din. I recall that the first time I ever heard it the mountains were clouded in a heavy mist. I did not know what caused the sound, but my companion knew and told me, and expressed the belief that the calves were calling for their mothers, having lost sight of them in the thick fog which had suddenly come up. In later years I often heard the sound in fair weather.

67. T. E. Hofer writes me: "All the bears killed by Colonel Pickett, on this hunt, were secured by using hollow pointed balls. In one instance only was a solid ball used, and that on a wounded animal running away quartering. The ball entered from back of hip, passed diagonally through him, lodging in the point of his shoulder and bringing him down. The first shot with the hollow pointed ball would have caused his death in a short time, but Colonel Pickett took no chances from an animal escaping for the want of a few shots, in a case where it showed vitality enough to run. This bear weighed something over 700 pounds."

IN THE OLD ROCKIES

It has occurred to me to write, in the form of two stories, of three days' hunting in the old Rockies. One of these deals with days upon which the memory loves to linger—days full of adventure, of unusual incident and of success. The other is of a day when only bad luck seemed to attend efforts in the way of climbing and covering ground which only the enthusiasm of the twenties enables one to put forth. I shall write of this last day first, because, as I think Fielding said, a tale, like a carefully prepared meal, should grow in interest or spicy flavor as it progresses.

With my friends Charles Penrose and Granville Keller and an exceedingly lazy and generally worthless boy, Frank, whom we had hired to look after the horses, we were returning to Bozeman, after about two months' successful hunting among the headwaters of the Stinking Water and Upper Yellowstone Rivers. At the head of Sheep Creek, a small tributary, I think, of Trail Creek, we had turned off the direct route in order to spend our

very last days of the hunt trying to get a good mountain sheep head. The time of the year was early November, and there were then plenty of sheep in this locality, for they had already come down from the higher mountains. Before this, I had had experience in hunting sheep, but up to that time I had not—nor have I yet—been successful in getting a very good head. I have grown to believe that, when it comes to hunting Rocky Mountain sheep, I am a Jonah, although it has been my good fortune to be quite successful in hunting other kinds of American big game.

One morning, the last of our hunt, I arose long before daybreak, prepared and ate a hurried breakfast and got well started by starlight. As has always been my custom when still-hunting, I went alone.

Before there was strong daylight I ran across a bunch of sheep, and I am ashamed to say that I fired at them, without knowing whether or not there was a good ram in the bunch. In the dim light I seemed to see a big sheep, and fired at it on the chance that it was a ram. I was gratified, on going over to the spot at which I had seen the sheep, to find that I had made two clean misses, since their tracks showed that there were several ewes and lambs in the bunch. At the time I was

using a splendid English Holland & Holland double express hammer rifle, .450 caliber, the shells being loaded with something like 120 grains of Curtis & Harvey black powder and heavy solid lead bullets, containing about 1-20 tin. I have always believed in plenty of lead, backed up by plenty of powder, and it is rather hard for me to become reconciled to the modern high power rifles. My experience with them at ranges over one hundred yards—that is, after the bullet has settled down and is rotating steadily on its major axis—has not been as satisfactory as with the old-time ammunition. I am told that there are new and very effective methods, with which I am not familiar, of making the small bullet expand without splitting into several pieces, even after it has settled down and its rear end is not wobbling about like a top before it "goes to sleep"—as we used to say when we were boys—which is supposed to be the cause of their making such terrible wounds at short ranges. If so, the modern rifles certainly have many and great advantages over those of the old style.

About sunrise I found myself a long way from camp, and an hour or so later saw in the distance a band of sheep lying down. With my glass I could see a fine ram among them. As the wind was

wrong, I made a very long detour, and at the end of more than an hour found myself behind a rock, which I had long before selected as the point from which I would attempt a shot. Just as I was about to peer cautiously around the rock I felt the wind hit me in the back of the neck, and an instant later came the sound of scampering feet and all I could see as I ran around the rock was a sheep vanishing behind another big rock a hundred yards away.

Cursing my luck, but knowing that there was very little use in attempting to follow them, I wended my way toward another mountain, and as the sheep happened to be going my way, I more or less followed their trail, not with any hope of seeing them again but simply because their way was my way. Reaching the other mountain, I found myself in open pine and juniper timber, and to my great surprise soon noticed from the sign in the snow that the sheep had scattered; in fact, had commenced to feed. I of course devoted myself to the track of the big ram and proceeded as carefully as if walking on eggs.

I followed him for perhaps a quarter of a mile, the wind being right, and this time holding true. I finally noticed the track pass around a very large juniper tree, one of those large and dense junipers

RETURNING FROM A DAY WITH IBEX.

(See page 314.)

of Montana which many of us know so well and which would be so beautiful in our eastern parks, with a spread on the ground of densely foliaged limbs perhaps forty to fifty feet in diameter and tapering in a perfect cone to the highest branch in the middle. The ram's tracks were very fresh and as it was the only track to be seen in the newly fallen snow to the right or left for many yards, I entertained the hope that when I should get around the juniper I might catch a glimpse of him beyond it. So I carefully crept around the snow-covered bushy base of the tree, both barrels cocked, expecting every instant to get a shot. I continued to walk around the tree until I found myself on the side opposite that from which I had first started to go around it. The ram's track still kept ahead of me circling the juniper. I followed carefully. When I was three-quarters of the way around the tree I was amazed that I had not previously noticed his track on that side of it, which was to my left when I first commenced to go around it; but as he kept on I followed directly after him. Imagine my surprise and high disgust to find when I had completed the circuit of the tree that there was the ram's track in my own boot track. No sign of him anywhere; only the evidence of long jumps in the snow, for he had doubtless started

off at a run as soon as he got my scent. Yet I had not heard a sound. I then came to the conclusion that that particular ram was not for me, and with hopes still high, I proceeded to try to find another bunch of sheep.

About midday I ran aross a mountain lion's track, practically as fresh as my own. Not having recently seen any sheep, and thinking that I might possibly get a glimpse of this lion, I followed him. He soon became aware of the fact, and proceeded to have some sport with me, for, as could be easily determined from the prints in the snow, he would wait for me to come in sight, and then would trot along a little further, get another point of observation, sit down and wait for me to re-appear. The country was rough, and I did not think it wise to make the loops to leeward so necessary in still-hunting moose in the far north, to come upon the game from an unexpected direction. After following the lion for an hour or more, constantly expecting to see him before he could see me, and at a moment when, unfortunately, I was keeping my eyes glued on the snow trail ahead of me, I saw out of the corner of my eye a dun-colored body flash from a tree not more than forty yards distant. Before I could shoot it had disappeared among some rocks. I afterward found that this

particularly provoking beast had been sitting on a low branch of a tree in full view all the time. Had I raised my eyes from the ground no doubt I would have had an excellent shot and would have had a good chance to add to my list of American big game one of the two kinds which I have never been privileged to kill; the other being a mountain goat.

Thinking that luck would change sooner or later I ate my meager lunch and made for camp over a country which I had not yet hunted. I found plenty of evidences of sheep but did not see one. Finally, however, in the late afternoon I came upon the track of the biggest sheep that I have ever trailed in my life and to my surprise and gratification I found that his track was about as fresh as my own. I started after this sheep and had not followed him a hundred yards before I saw him climbing the rocks ahead of me at a great pace. Before I could cock my rifle and shoot, he was almost on the sky line, about a hundred and twenty-five yards away. I am afraid that in my haste I saw rather too much of the front sight and sent both bullets straight over his back. I supposed from his movements that he had already found me out and was trying to get away. Imagine my surprise, therefore, when as I was

putting two new cartridges in my rifle, the ram reappeared on top of the hill and without a moment's hesitation returned full drive on his back trail. I gleefully said to myself, "Luck has changed at last," and so patiently and, as I thought, very coolly, waited for him to come nearer, meanwhile admiring and counting as my very own his magnificent head. On he came, and not until he was within ten or fifteen feet of me did I wave my rifle at him and yell. He reared on his hindlegs, the most startled sheep that it has ever been my good or bad fortune to see. I threw the rifle to my face and pulled and pulled and pulled. I know that I came very near pulling those two triggers off, and before I could realize what had happened, the ram made a lunge into the thick underbrush at one side and was gone. I had forgotten to cock either barrel!

I now made my way to camp as fast as I could leg it, with my hat brim well down over my eyes, determined to look neither to the right nor to the left, for I had come to the conclusion that there was no use trying to buck against luck like that. I soon arrived at camp, and hardly waiting for dinner, crawled into my sleeping bag, like Job refusing to be comforted. The next day we broke camp and went on to Bozeman. I hope that that

sheep is alive to this day—at least, that nobody else ever got him.

The scene of the other day's hunting was in the upper Hell Roaring country, north of Yellowstone Park. I think the territory is now embraced within the Park limits, but this was in 1883, as I remember, and the Park limits then were different from what they are now. This story antedates its predecessor by several years.

Keller and I had made an early start from camp on horseback, intending to hunt on the high divide which separates the Hell Roaring waters from those of Bear Creek. Toward noon, as we were riding up a shamefully steep trail, we heard a noise in the brush on the opposite side of a little glade in front of us, and suddenly two great black backs appeared, rushing directly toward us. "Bear" was the thought which popped into the minds of both of us as we swung out of our saddles, unconsciously throwing our reins over the heads of the horses. As we carried our rifles in those days in a sling hung on the pommel of the saddles, they were in our hands ready for action as we landed. At that moment the head of a big mountain buffalo burst through the underbrush into the open glade. I have always been a quick shot, and almost as quick

as a flash I shot straight at the center of his forehead. The rifle I was using was an extra long-barreled .45-60 Winchester, with which I am glad to be able to say, grizzly, black and brown bear, buffalo, elk, sheep, antelope, blacktail deer, whitetail deer, moose and caribou have been killed. The bullet struck fair in the center of the forehead, as we afterward learned, but did not alter the speed of the buffalo any more than if a fly had alighted on him. At that moment Keller called out, "Shoot the second buffalo! Shoot the second buffalo!" and I realized then what I had not before seen, that the second buffalo was a much larger bull. Both were very old "stub horns." Keller, who had been an old buffalo hunter on the Montana plains, subsequently said that it was the largest bull buffalo he had ever seen. I heard him shoot once, and then, as he afterward told me—I had never seen a wild buffalo up to that moment—he leaned back and greatly enjoyed seeing me pump bullets into the big bull. We actually had to jump out of the way of those buffalo to let them pass. At that short range it was next to impossible to miss. I think I put twelve bullets in all into the big bull before they both passed out of sight over a nearby ridge. I was greatly excited and wished to follow them, but Keller said, "No, let's first get the horses

if we can." In about five minutes we found them on the edge of a precipice snorting and trembling violently. There was small wonder that they were frightened, for, beyond doubt, they had been in danger of being run down by these two bulls.

After we had taken the saddles off the horses and picketed them, Keller said, "Now it is time to go and see what we have done. I could see the dust fly every time your bullets struck, so that I am pretty sure you will get your bull all right. I know that I will get mine unless my bullet struck a little too far back." After going over the ridge where the buffalo had passed, we soon saw the big bull standing up against a stunted pine tree in a rather remarkable position. He was standing upon his hind feet but his forelegs seemed to be doubled under him. He did not move at our approach, and yet he looked so very lifelike that we dared not go near him for fear that he might turn on us. Finally I got a stone, while Keller stood with his rifle ready, and throwing the stone at the buffalo hit him fair in the head. He did not move, and on going up to him we found that in falling he had fallen against this stunted pine tree and was supported partly by it and partly by the remnant of an old stump which we had not seen. Having satisfied ourselves that we had this fellow all right

we went on a little further and found the other bull slowly walking about, but very "sick." I fired two or three shots into him and brought him down. We now cut out such portions of the meat as we could utilize and began to skin out the heads. Both buffalo showed the effects of old wounds, and while skinning out the head of the big bull we cut into a horribly smelling sack at the base of one ear, out of which sack fell a small round bullet, evidently fired years before from an old muzzle-loading Kentucky rifle. We also took from under the hide of this buffalo an old 500-grain U. S. Service .45-caliber bullet. His great size had evidently made him a target before he finally fell to my .45-60. It was so late before we finished our work that we did not try to return to camp that night but rolled up in our saddle blankets and slept under a big pine not far away, after making the best supper we could on tough buffalo steak.

The next morning, after quite a circus with the horses when we tried to load the scalps upon them, we made our way to camp, I very happy in having killed my first buffalo and that this was not only one of the then so-called mountain bison, but an unusually large bull.

A few days later I decided to set out on foot alone and hunt over the same general region for

sheep, for it was then an excellent sheep country. I started before daybreak, and shortly after sunrise passed a little glade or grassy open space in a pine forest, in which open space had fallen a good bull elk, which Keller and I had killed two weeks before, the head and horns of which were hung up quite high between two small pine trees which grew from the same stump on the edge of the little glade. As I passed by this elk carcass I noticed that something had been feeding on it. Whatever animal it was, it had been so dainty in its feeding that I suspected it was a mountain lion rather than a bear, although I knew the former's predilection for freshly killed meat. All day I hunted faithfully, and going to the two buffalo carcasses on the high divide found that bears had visited and were feeding on them. After picking out a good place where we could camp when we should go to watch these carcasses, as we had planned to do as soon as we ascertained that bears had found them, I hunted carefully most of the way back to camp. I do not remember ever having taken a much longer walk than on this occasion or having hunted more faithfully, yet not a hair or a hoof of living animal did I see. Recognizing by a certain big red cliff that I was near the spot where the elk carcass lay, I concluded, as it was

then near 4 o'clock in the afternoon and as I was tired, that I would go over to the elk carcass and watch by it for an hour or two on the remote chance that the animal which had been feeding upon the carcass might return. I selected a spot well to the leeward of the carcass in the edge of the slender pine trees on the opposite side of the open glade from that nearest to which the elk carcass lay. I laid my rifle against a little sapling, and sitting down leaned back against a rock, which I remember was exceedingly comfortable and fitted my back exactly. The chance that a bear or mountain lion would visit the carcass at that time of the day was so slight that, becoming drowsy, I was very willing to take a nap.

How long I slept I do not know. I remember getting on my feet, stretching my arms, pulling out my watch, looking at it and then sleepily forgetting what time it was. I looked at my watch a second time, saying to myself, "Five o'clock! I had better go to camp," took another stretch, yawned and then turned my head toward the little open space in which the elk carcass lay.

Over on the other side of the little opening in the pine trees was a large grizzly bear, looking as good-humored and as inoffensive as any bear which we have in our Zoological Gardens in Phil-

adelphia. The wind was blowing strongly and directly from the bear toward me, which accounts for her not having either seen or smelt me. When I first saw her—it proved to be an old she bear—she was looking directly at me. I think she must have indistinctly noticed some movement on my part. Although my heart was in my throat at such an awakening, I retained enough sense not to move again, for I had not yet, figuratively speaking, completed my yawn, and my arms were still outstretched. As soon as she turned and looked in another direction I reached down for my rifle, cocked it and sprang to the edge of the opening. I instinctively knew that we would have it out then and there, and that there was no use in running.

Leaning up against a small pine tree, with nothing except it between the bear and me, I watched her walk around the opposite side of the opening, which was not more than thirty or forty steps across. As I watched her the bear noticed the skull and horns of the elk which were hung up between the two small trees as described. She swung herself easily up against these trees—her head moving constantly, otherwise I would have shot long before—and made an ineffective reach for the elk head and horns. Not being quite able to reach them, she waddled up closer to the tree,

tip-toed and got hold of one elk horn and pulled the skull down opposite her mouth, evidently expecting to find the head full of maggots. She thereby wedged the horn between the two small trees with such force that it took us a long time the next day to get it free. We had cleaned the head so carefully that she was disappointed in getting her *hors d'œuvre* of maggots. With a disappointed munch through the skull, and after cuffing it with her paws, she dropped lazily, but gracefully, to the ground and made straight for the carcass, therefore almost directly toward me. She placed her forefeet on the carcass, first turning her head toward the part which was away from me, and then toward the end which was nearest me, at which moment she saw me for the first time.

Without an instant's hesitation and with her appearance now that of furious rage, her little eyes curiously green, she charged like lightning, uttering meanwhile a low whine, while her mouth was wide open. I jerked my rifle down, having determined to put it in her mouth and pull the trigger when she should reach me, because I wisely concluded there was no chance of checking such a charge with my .45-60. When she reached a point less than five rifle lengths from me she came to a sudden halt, with her feet planted well before her,

and looking me straight in the face, stood stock still. Whether she would have turned tail in another instant and run from me I do not know. It is not improbable.

Here was the opportunity for which I had waited so long, for it was the only moment from the time my eyes first fell upon her—and they did not wander very far from her during this time—during which she kept her head perfectly still, and I did not dare shoot at any other portion of her body. I threw my rifle to my face as quickly as I could and fired at her left eye. At the shot, she arose upon her hindfeet and danced for all the world like a trained dancing bear back to the spot where the elk lay, and then fell backward almost across the elk carcass. I had hit her rather too high, with the result that I had lifted off a small portion of the top of her skull, but this I did not know then. I ran up to her thinking to finish her off with a second shot. Then I was possessed with a desire to be able to say that it had taken only one bullet each to kill my first and second grizzlies, for I had killed a smaller bear several weeks previous to this. So I stood over her with my rifle pointed at her head and in glorious excitement watched her struggles grow less and less until she lay still. I then walked around her, about the

proudest youngster in that part or probably any other part of the country.

Wishing to make sure, however, that she was really dead, I playfully caught hold of her right hindleg—she was lying almost flat on her back—and gave it a long, strong pull. What the physiological effect of this action on my part was I do not know, but I do know that with an unearthly sort of a groan she rolled over on her side. This was too much for me. My nerve had held all right until then, but at this particular moment it oozed out somewhere. All I can remember is that I took out through the woods at the greatest gait I think I have ever employed, distinctly hearing the bear behind me, and almost feeling her hot breath on my back as she made jump for jump with me. After I had run about a hundred yards, as far as I could at that gait, I whirled around, for my nerve or what was left of it had slowly returned to me. Somehow I had kept hold of my rifle, and I was prepared to do or die. To my utter surprise, there was no bear in sight. I sneaked cautiously and shamefacedly back nearer and nearer to the little open glade, where I found the bear and the elk lying where I had left them, one as dead as the other.

This bear was a well-grown, but rather lean

female, not weighing a thousand pounds by any means, but probably weighing between four hundred and five hundred pounds. In fact, she was a very good-sized grizzly—one of the largest, and certainly the tallest which I have ever shot.

Daniel Moreau Barringer.

IBEX SHOOTING IN THE THIAN SHAN MOUNTAINS

In the late winter of 1908, Chew and I decided on a shooting trip in the following summer to the Thian Shan Mountains, in Chinese Turkestan, where we knew there were many ibex—carrying the largest horns to be found anywhere—with a chance for sheep and wapiti; the sheep being the far-famed *Ovis poli*. The State Department had our passports viséd for us at Pekin—thus giving us the necessary permission to travel in Mongolia—and sent to our Embassy in London, while our Ambassador at St. Petersburg got for us permits to import rifles and cartridges into Russia, together with permission to travel in Russian Turkestan.

In London we tried to get some visiting cards with our names in Chinese on them, but were unable to do so. These cards are of thin paper, 3½ x 7½ inches, white on one side, red on the other, with the name written on the red side in black ink. It is important that the name on the card should be

THIAN SHAN WAPITI.

exactly like the name on the passport. These cards are left at every opportunity.

At the Army and Navy stores in London we bought our camp beds, folding candle-lamps, two large tents, two small shelter tents for servants and to use when away from the main camp, a folding table, a couple of camp chairs of the Roorkee pattern, and two hot water plates, which later we found most useful when the weather was cold. We also bought three thermos bottles and a couple of haversacks to carry lunch in. My battery consisted of a double 360 rifle by Fraser of Edinburgh, with a single rifle of the same caliber in case of accident, and a shotgun. I had a pair of field glasses and a large telescope by Steward, of London. The glasses were used in finding game, the telescope in examining more closely the game when found, and also in watching ibex when a stalk was impossible. If I were going again, I should take an extra pair of glasses in case of accident, and for the men, who soon learned to use them. A couple of pairs of good shooting boots with plenty of nails and with iron heel-pieces with spikes, completed our outfit, while for clothes we had Norfolk jackets and knickerbockers of a neutral color.

When in London I tried to get an interpreter who could speak English and Russian, but with-

out success, and it was not until we reached Moscow that we engaged a man who had good recommendations, but who was absolutely incompetent, besides being a liar and a thief. This is a most difficult as well as the most important position to fill, as few Englishmen speak Russian and fewer still Turki, the language of the country. I think, however, that anyone taking this trip would do well to give up the idea of engaging a man who could act both as interpreter and caravanbash or caravan leader, contenting himself with an active young man who could speak Russian and English. Such a man could be gotten through any of the American firms doing business in Russia.

From Moscow the train runs daily to Tashkent, making the trip in a leisurely manner in five days, while once a week a *wagon lit* is put on. The first-class cars are very comfortable. Tashkent, which means "stone camp," is quite a large town, having a population of 170,000, and is divided into the old or native city and the new or Russian city. The hotel is good, though expensive, and there are good shops, where we bought some cocoa as well as other supplies, which we could just as well have gotten further on and so have saved much time and trouble.

We bought a tarantas for ourselves, as well as

a baggage wagon for our outfit and men, for we engaged here as servant and cook a man who could speak Russian and Kirghiz, and who proved most excellent. A tarantas has a body built on poles stretched between the front and back axles, without springs of any kind, except such as are furnished by the yielding of the poles, which is not much, and has a hood like a mail phaeton, with a place at the back for a trunk, as well as a seat for the driver. It is drawn by three horses put to in the usual Russian fashion, with the center horse trotting in the shafts, the other two galloping. The tarantas for the servants and luggage was longer and fitted with a canvas cover, like an old-fashioned prairie schooner.

The road to Kuldja and the Przevalsk is a post road, the charge being three kopecks per horse per verst, with a few kopecks to the driver. A kopeck is one-half cent; a verst, two-thirds of a mile. This includes a tarantas, but we had our own, to save time and trouble in changing luggage at each post house, as we usually did five or six stages a day. The road is both dusty and rough; so rough, in fact, that some quinine pills in a bottle were reduced to powder—although packed in a medicine case in my trunk, the medicine case being rolled in flannel underclothes—while the long lines of

camels, often two hundred in a caravan, and the wagons transporting supplies grind the rich soil to the finest powder, which invades everything.

The post houses are very clean and neat, having two rooms for travelers, a large one with a smaller opening off it; the walls are white-washed and the floors of brick, while in the larger room hangs an ikon, a picture of the Tsar and a calendar in Russian of the Singer Sewing Machine Company. At the post houses one can usually get eggs and the brown bread, together with the ever-present samovar for tea. A tariff, of course in Russian, hangs in each room, stating the prices of the samovars, which was usually ten kopecks, and other charges, together with the cost of repairs to tarantasses. A paper should be procured from the Chief of Posts, either at St. Petersburg or Tashkent, giving the right of way over everything but the mails. This is important, as the keepers of the post houses have a supreme contempt for everyone but officers. Although it was midsummer, the windows, as a rule, were sealed by strips of paper pasted over them, and I am afraid we were thought mad in having them opened.

We had intended making Kuldja our starting point, but when in Tashkent were advised to go to Przevalsk, on the eastern end of Issa Kul, a lake

about one hundred miles long, as here we were told were the best hunting grounds. Ten days' easy travel brought us to Przevalsk, where we were very well received by the Governor, and spent five days getting together our hunters, ponies, and other things. Then, just as we were about to leave for the shooting grounds, we received word that shooting was forbidden, and that we must return. We asked permission to cross the border into China at Naryn Kul, a couple of days away, but even this was denied us, and we were delayed for more than two weeks getting the necessary permission from our Ambassador at St. Petersburg.

The day after our arrival, the Governor called upon us, asking us to lunch with him next day, which we did, and while waiting for lunch he had his servant produce several heads of ibex and sheep, which he offered to give me, saying, "Now you need not go to the fatigue of shooting these yourself. If you want more I shall send for them." It was difficult to make him understand the Anglo-Saxon idea of sport, more especially as every word had to go through the interpreter, who could not understand it either.

The delay was all the more exasperating, as we could see our hunting grounds from our bedroom window, and every day native hunters were bring-

ing in heads of *Ovis poli,* ibex and roe deer for the Director of the School, who also supplied museums, while everyone frankly admitted that there was no reason why we should not go wherever we wished.

At length, on July 3, after having been at Przevalsk since June 16, we received permission to cross the border at Naryn Kul, and were so glad to be underway once more that we started at once, traveling well on into the night. The next day brought us to Karakara, in the middle of a large plain, where for three months in the summer a great fair is annually held. Hither come the nomadic tribes from considerable distances—Kirghiz and Kazaks, to purchase for the following year all articles which they cannot make for themselves. The Fair is laid out in streets with wooden booths, each street or portion of a street being devoted to one article—such as saddlery, cooking pots, and so on—while on the outskirts of the town a brisk trade is carried on in horses, camels, cattle, sheep and goats. We spent the day here, wandering through the bazaars, and could not but admire the manner in which the bazaar master kept order.

In the evening we traveled on again, and in the morning, just as we neared Naryn Kul, had a

superb view of Khan Tengri, rising in a snow-clad cone to 24,000 feet. So high were the neighboring mountains that it did not appear to tower much above them. At Naryn Kul we found a German baron, with one of Hagenbeck's men, hunting on the Muzart, a river running into the Tekkes just beyond the boundary. Of course, we did not wish to conflict with them, so after a consultation with our hunters, we decided to go to the headwaters of the Kok-Su, a large river running into the Tekkes from the south, as this was the only other place where we would find *Ovis poli.*

We got away at noon the next day, and soon crossed the boundary, here unmarked, into China or Katai, as it is called, from which no doubt Marco Polo got the name Cathay. The Tekkes valley, where we entered it, is about forty miles wide and covered knee-deep with rich grass, while on either side rise the snow-covered mountains upon whose higher slopes grow forests of spruce. While I have never been in Kashmir, I have been told by men who have seen both, that the valley of the Tekkes far surpasses it, not only in grandeur, but in beauty, and I cannot imagine a more beautiful sight than this valley with the darker green of the forests against the vivid green of the lower slopes, which look as if cared for by a giant

gardener, while above all glaciers and snow-fields glisten in the sun.

At the end of the next day's march, we sent back the wagons to Naryn Kul, as the Agoyas, one of the numerous rivers running into the Tekkes, was impassable for them; and for the next four days we traveled eastward down the valley with our stuff loaded on bullocks, getting fresh ones each morning, as well as fresh ponies, so that we could make long marches, not having to think about our animals.

The usual plan was to send ahead to the next village an orderly, or jigit, who would have two yuartas awaiting us—thus saving pitching our tents—with a sheep neatly butchered for our use and fresh transport for the next day. The usual price was twenty-five cents a day for each animal, including the wages of the men.

In describing the yuartas and people I cannot do better than quote William de Rubenquis, a monk, who visited Tartary in 1253, and who in his report to St. Louis of France wrote as follows: "They have no settled habitation, neither know they to-day where they shall lodge to-morrow. Each of their captains, according to the number of his people, knows the boundary of his pasture and where he ought to feed his cattle, summer and

winter, spring and autumn. Their houses they raise upon a round foundation of wickers, artificially wrought and compacted together; the roof consisting of wickers also, meeting above in one little roundel, which they cover with white (or black) felt. This cupola they adorn with a variety of pictures."

On our way down the Tekkes we were met by an escort sent by a Manchu General, Fu Chen, who was inspecting the country, asking us to lunch with him at his yuarta. Of course we accepted, although we knew little of Chinese etiquette save to keep on our hats and not to drink the ceremonial tea until we were leaving, while if he drank his first it was a sign the interview was at an end. The lunch lasted from one until five, with twenty-eight courses and quantities of cognac, ending with music by his private band, and it was well on in the next day before we could think of food again, politeness requiring that we should eat of each dish. No sooner was lunch over and we had reached our yuarta than a servant appeared with Fu Chen's card and a present of a sheep and some flour and rice; so we prepared to receive our guest, at the same time getting out some American tobacco as a present in return. For his amusement we showed him some books with illustrations, and both he and

the Russian aide were much interested in Langdon's book on the British Mission to Tibet, as Fu Chen had met Younghusband in Kashgar. He at once recognized Younghusband's picture, and examined over and over again the illustrations of the Sacred City of Lhasa.

We had a good deal of trouble with our packs, as the people had had no practice with the different shaped bundles, their principal experience being in moving the yuartas from place to place, and this they did very well, putting the framework of the yuarta on one bullock and the felt covering on another. The better packers used a hitch not unlike the diamond, taking up the slack from time to time with a short stick. With the horses it was even worse, as the only pack saddles to be found were made to fit the round backs of the bullocks, and this caused the packs to slip badly. As the bullocks do not sweat, their backs do not gall as soon or as badly as the backs of the ponies.

When we reached the Kok-Su, we turned south into the mountains, the path winding up a small stream until we left it to climb in the afternoon to a tableland about 7,000 feet above sea level, where we found the Kirghiz encamped in numbers, with thousands of horses and tens of thousands of sheep. These people live principally on mutton

and kumyss, fermented mare's milk, which we soon got to like and which is mildly intoxicating. Here I spent a couple of days wrangling with the head man about transport for the next six weeks, while Chew killed a roebuck and saw the track of a tiger in a cañon.

Marco Polo, writing about 1275, says of the Tartars: "The women do the buying and selling, and whatever is necessary to provide for the husband and household, for the men all lead the life of gentlemen, troubling themselves about nothing but hunting and hawking, and looking after their goshawks and falcons, unless it be the practice of warlike exercises.

"They live on milk and meat, which their herds supply, and on the produce of the chase, and they eat all kinds of flesh, including horses and dogs and Pharaoh's rats, of which last there are great numbers in burrows on the plains."

Pharaoh's rats no doubt are marmots, which are very plentiful and which spoiled many a stalk, as their shrill whistle put every animal on its guard. From all we could learn, not only on the Tekkes, but at Kuldja, tigers are fairly plentiful in parts of both Russian and Chinese Turkestan, but are very seldom shot, none of the half dozen skins which I examined having a bullet hole. As a rule,

they inhabit the great tracts of khamish or reeds, where they prey upon the wild pigs and are usually taken by poison. The Belgian fathers at Kuldja told us that several dozen skins are every year taken in the neighborhood of Urumtse, about four hundred and twenty miles to the eastward.

Almost every chief among the Kirghiz had one or two golden eagles, which they used for killing game such as roe deer, foxes, and, I am told, even wolves; but many of these birds seem to be kept more for ornament than for sport, as we never could get the Kirghiz to fly them—although it is only fair to say that the Fathers at Kuldja told us that they had often seen them used. On the plains the common little hawk, like a sparrow-hawk, was often carried on the wrist.

On the second afternoon I rode over to a place where there were said to be roe, but saw only a couple of does. On the way, while riding along a hillside, we saw a couple of little hawks sitting on a tree some distance off, upon which my men spread out, calling at the same time to the hawks, which at once began flying in circles over us. As at that time I could not speak a word of the language, I could not imagine what was their object, until a little bird was put up out of the grass, when one of the hawks immediately flew at

it, but missed it, when the bird darted in between my horse's feet, as I sat watching the chase. I let the bird remain safely where it was in the grass at the horse's feet, and we went on, having seven other flights, but in each case the little birds escaped either among rocks or into bushes. On many other occasions when we saw hawks they came to the call of our natives.

At last I arranged for the necessary horses, two yuartas and a flock of thirty sheep for food, and the next day we were again underway up a narrow valley, whose sides were covered with pine. Up and up we went, until noon, when a halt was made at the last wood, where enough was gathered for the night; then on again over a pass, where the ponies floundered through snow to their bellies until, just as the sun was setting, we dropped into a little valley, making camp at the foot of the glacier in a meadow literally purple with pansies.

After the day's march, the ponies are not let graze at once, but are tied up for two or three hours. I asked the cause of this, and was told that if a tired pony was turned loose he would take the edge off his hunger and then lie down for the night, while if he rested first, he would eat a good meal. The only time a pony was turned loose at once he did just as they said.

So far we had seen no game, but the next morning a little herd of ibex, high up on the mountain, caused the glasses to be used, only to show that they were all females and young. Further on we passed several skulls of sheep, killed in the winter by wolves, and so felt that at last we were reaching the game we had come so far to find. Another day brought us to a place called Karagai Tash, meaning Stone Pines, from a range of hills whose sides had been eroded by wind and weather until, in the distance, they looked like pine trees. Here we made a permanent camp, turning in that night with hopes high for the morrow; but a snowstorm for the next three days kept us in our tents, where most of the time was spent in bed, as we were well above timber line and had for fuel only a few shrubs, helped out with horse and cow dung.

Khudai Kildi, my hunter, was quite a personage. Belonging to the Kara, or Black Kirghiz, he had a profound contempt for Kazaks and common Kirghiz, both of whom he used to order about, often enforcing his commands with a beating from the heavy riding whip he always carried. A fine looking, dignified man of fifty, he stood over six feet and must have weighed over two hundred. On his left arm he carried the scars of a fight he had with a bear when still a young man, and one day, while

we were having lunch on the mountain tops, he told me most graphically by signs how he had caught the bear by the ear and killed him with his knife. The sheath knife he carried had a blade about seven inches long, and once a week would have an extra sharp edge put on it, so that he could use it to shave his head.

At last it cleared, and at daybreak I was off with Khudai Kildi in search of ibex. We had not ridden a mile down the narrow valley, when he pointed out a little herd feeding above us on the hillside, only to find that again they were all females. While we were having lunch, about 11 o'clock, Khudai Kildi spied three ibex far off on the sky line among some patches of snow, and we settled ourselves for a long wait, as they were in an unstalkable position, and were not likely to move until afternoon. The fates were kind to us, as they soon got up and walked over the ridge. Leaving the man with the horses, Khudai and I went up another nullah and over the top, but could see nothing of them until we were well down the slope on the far side, when out they walked some distance below us in full sight, but out of range, and it became a case of "belly down on frozen drift" for over an hour in the cold wind that chilled us to the bone.

At last they moved down under a ledge, and we crawled down until I could see one lying just below me a couple of hundred yards away. I was keen to get him, as well as to let off for the first time my new double 360 Fraser, so waiting until I had my wind—we were over 13,000 feet up—I fired, giving him the second barrel as he struggled to his feet, knocking him over the ledge. Letting the other two go, as I saw they were much smaller, we slid down the loose shale to find my first ibex lying dead in a little meadow of wild flowers—not a large head, for the Thian Shan, but forty-six inches with heavy horns—very good to begin with.

Another successful day after ibex occurred soon after this on a river called the Musteban, which flowed into the Kok-Su. I had left the main camp for a few days' shooting and had reached our camping ground near sunset; while the supper was cooking Khudai Kildi and I were hard at work, I with the telescope, he with the glasses, spying the slopes high above us. We were soon rewarded by seeing several hundred ibex, among and above which was a large herd of males. Early next morning we started on our ponies—with a man to hold the horses when the climbing began, as well as to carry the lunch and a thermos bottle of cocoa.

CROSSING A PASS.

Our ride was a long one, as we had to avoid a rather nasty ford, and had not gone more than an hour from camp when Khudai, looking over a bank, pointed out a couple of roebuck lying asleep on a little knoll directly below me. As we were still a long way from the ibex, I took a shot at the larger of the two, the only result being that his head sunk to the moss, while a quick second barrel accounted for the second. I felt that this was rather a good beginning. Covering them with a great coat to keep off vultures, we kept on until we could see the ibex among the rocks on the other side of a great basin. Here we left the horses out of sight and placed the man where he could signal if the herd moved. The climb up the sliding shale was hard work, the last couple of hundred yards being through deep soft snow; but at last we reached the top and began our stalk on the ibex lying among the broken rocks far below us. Very carefully we made our way down, an occasional look with the glass showing the man where we had left him. This side of the mountain was broken by small cliffs about twenty feet high, but quite as effectual as if they were much higher. At last our descent was blocked by a small ibex, so back we had to climb, almost to the top and down another chimney. Carefully looking over the rocks, we

saw the ibex, fully forty in number, lying about the rocks.

For half an hour we in turn used the glasses to pick out the best heads, far from an easy job when an inch or two makes such a difference, and decided on a little bunch of six that were directly below us. Of these I chose the two which to my mind had the longest horns, and then asked Khudai's advice in a whisper. He took six little stones, arranging them in the same positions as the ibex were lying, and chose the two which I had picked. Taking a fine sight, as they were almost directly under us, I got the first one with the right barrel and wounded the second as he was dropping out of sight over the cliff. It took us some time to get down to the first ibex, which had never moved—a lucky thing, as if he had moved at all, he would have rolled some thousand feet further down. As it was, we had a hard time getting off his head and skin on the narrow ledge.

By this time it was well on in the day, and the other ibex could be seen very sick, lying under a rock some distance away at the foot of a high wall of rock. He heard us coming over the sliding shale, but was too weak and stiff to climb the face of the cliff, although he made a gallant attempt. Our lunch tasted very good about 4 o'clock, after

we had struggled up the mountain and down the other side with our heavy loads, and we reached camp at 7 o'clock, picking up the roebuck on the way.

The first ibex measured 43¾ inches, the second 46½ inches, while the roe were 13⅞ and 12½ inches.

Of course, we were very anxious to get sheep, of which a few were still to be found on the rolling plains to the eastward, and after much hard work and some weeks devoted to them, Chew got a fair head, while I was unsuccessful, as I could not get within shooting distance of the only bunch of rams I saw. The rams were very wild, and at this time of year were in little bands by themselves, usually occupying such a position that they could not be approached nearer than half a mile, often not so close. I think their wildness was due more to danger from wolves than from man, as they were seldom hunted by men, but were continually disturbed by the very large wolves which abound in this part of the mountain, while the numerous skeletons of old rams showed the toll the wolves took. I have heard it said that if a wolf can get within eight hundred yards of a ram he could run him down.

The wolves were much like our timber wolf,

although some were darker, and several times we saw, among the horses, yearlings and two-year-olds, whose flanks and hindlegs had ugly wounds. The old rams are the easiest prey for the wolves, as the great weight of their horns causes them to sink deeper into the snow or bog, and although I kept a sharp lookout, I never saw the skeleton of a ewe or young ram. This would be explained to a certain extent by the fact that the heads of these would not be so easily seen. We saw numerous ewes and young rams which were comparatively tame.

Chew afterward got a very fine ram with horns 55 inches on the curve and 49 inches from tip to tip. I noticed that this animal had, as usual, very thick skin over the nose, no doubt as a protection in fighting; and in Kuldja I also noticed that the rams of the domestic sheep kept for fighting had this feature very highly developed. These rams were kept solely for fighting, just as game cocks are in other parts of the world; and one morning we offered a prize for the best ram. The rams, with their handlers, accompanied by numerous backers, soon arrived and were placed about twenty yards apart, being let go at the same time. As soon as released they ran at each other with surprising speed, coming together with great force and a loud

crash; then, of their own accord, they backed further away, until forty yards separated them, when they would again come together, repeating this until one was groggy, which usually occurred after four or five rushes.

For the next two weeks we hunted on the headwaters of the Kok-Su, some of the time being storm-bound or unable to hunt on account of the clouds being low on the mountains. During this time I shot six ibex, the best head being fifty inches, while the smallest was forty-six. I could have shot a great many more if I had wished to do so. This was not as well as I should have done, but I was very unfortunate in having my glasses washed away while crossing a river, leaving me only the big telescope, which I could not use for quick work, and often I was not sure of getting the best head from a herd of ibex about to move off, as the difference between fifty inches and fifty-four inches is not easily detected at two hundred yards.

By this time our ponies were very footsore and thin, and we decided to go down to the Kirghiz encampments to renew our supply, and once more our men were reveling in kumyss, while we were forced, from politeness, to drink the tea offered to us as a delicacy. This tea is compressed into bricks

about nine inches long by five wide and a couple of inches thick, a piece of which is cut off much in the same way as plug tobacco. The tea itself is quite good to Western tastes, but when a lump of salt and some rancid butter is added to the brew, it leaves much to be desired.

We spent a week at this camp, which was on a river called Jilgalong, once a famous place for wapiti, but now full of the immense herds of horses and sheep that the natives were pasturing here. Our camp was beside a river, running clear and cold, which should have contained trout, but, like all rivers running from the glaciers into the Tekkes, had no fish. The only game was roe deer, of which we shot several, usually by driving them up one of the numerous nullahs. These roe are a much larger animal than their western relatives, standing from thirty to thirty-four inches at the shoulder, with horns about fourteen inches long. There were some black game scattered among the hills, but without a dog it was useless to try to find them. In the scrub bordering the Tekkes, and more especially on the islands in the stream, there were plenty of pheasants, similar to the common English variety, with a white ring around the neck. On the plains there were a few bustard, both great and small, but very few ducks or geese.

We were very much disappointed in not finding wapiti in Jilgalong, where ten years ago there were plenty, but owing to the constant hunting of this fine stag for its horns, they are rapidly being killed off. The horns, when in the velvet, are in great demand among the Chinese as medicine, to be used by the women at childbirth. A large pair brings as much as $50, while the skins bring a good price at all seasons of the year.

After a consultation with Khudai, we returned to the Kukturek, where we spent a couple of lazy days, most pleasant after our hard work of the past weeks, loafing about camp and shooting pheasants in the afternoon, while he looked up a friend of his who knew this part of the country.

A couple of very long days found us on the headwaters of this stream, where we were to leave our camp, and, taking a few men, were to cross an immense glacier to hunt in a country seldom entered by natives.

For two days a heavy storm kept us in camp, but it cleared in the evening, and the third morning found us under way at dawn, so that we might cross the glacier before the heat of the sun should melt the new snow covering it. We had much trouble in crossing the immense crevasses, whose black depths were far from pleasant to look into,

but eventually reached the summit, and had begun our descent of the other side over steep rock slides, when the clouds, which all day had been low, descended, leaving us helpless. At last they lifted, and we were just moving on, when a huge section of the mountain just in front of us gave way, coming down in an avalanche, which narrowly missed the leading ponies. The noise was deafening, and we were much relieved when the dust lifted to see our men safe.

Down we went around a shoulder of the mountain, where high above us the men could see with the naked eye, and we with the glasses a large herd of ibex on the sky line. Chew won the toss, while I waited with the outfit, where I was to see an example of good luck often dreamed of, but seldom realized. It was 1 o'clock when he left, and for the next two hours we watched him with his hunter slowly climbing up the steep grass slope, occasionally shut from view by heavy squalls of hail and sleet. At last, with the big glass, I saw that owing to the nature of the ground, he could not get within shot, and was wondering what he would do when the entire herd, numbering about sixty male ibex, suddenly got up and moved rapidly away from him, only to turn quickly and charge in a body to exactly where he sat crouched

behind a rock, passing within twenty yards of him. Time after time his double 450 roared out, the reports coming faintly to us. After seeing this, I moved down the valley a couple of miles, to camp on the first piece of ground that was fairly level. Long after dark Chew got in with three good heads, and with every chance of picking up three more, which he did, in the course of three days, his best heads being 54, 52½ and 50 inches, the last with a spread of 46 inches.

At daybreak next morning I left him with my kit on two horses and with four men to cross another mountain to a place where our guide said there were wapiti. The next evening, after a long day over the roughest country I have ever seen, saw us camped in a long, narrow valley, with many nullahs running into it, whose sides were covered with grass, having here and there wide strips of pine or poplar. By the time I had pitched my little shelter tent and cooked supper, it was 9 o'clock. Four the next morning came very quickly, and soon after we were off in the dark through the dripping underbrush to a place part way up the grass slope, where we could see the opposite side of the valley when day broke. For a quarter of an hour we sat shivering in the cold wind which blew over many miles of ice, waiting for the day, and

as it slowly brightened in the east, we could make out with the glasses two little bands of wapiti and a single one that we saw had horns, the others being hinds. Before it was light enough to use the telescope, they had all gone into the timber, while we got back to camp for breakfast, just as the sun shone on the snow-covered peaks far up the valley.

As the river in the cañon would be in flood toward evening, we moved over at once, getting everything wet in the rather villainous ford, and then sat down to wait until evening, when we would go after the stag. The lay of the land was such that we had to wait until the wind blew down the cañon, which we knew it would do as soon as the sun got near the mountains. At last the longed for change came, and we were off, reaching the place near where the stag had gone into the timber, as it was getting dusk, but he had not come out yet. However, he soon walked out near us, when we saw to our disappointment that he was a small six-pointer—that is, three points on each horn—and what was worse still, in the velvet, although it was now the first week in September. For a week I repeated this proceeding each day, but without seeing a shootable stag, and often no stag at all, while we could not move further up or down the valley, as the water was still too high.

The long days sitting in camp, doing absolutely nothing, as I had read and reread all our books, and without a soul to speak to, as my Kirghiz was very limited, got on my nerves to such an extent that, after eight days, we left, reaching the camp where I had left Chew on the evening of the ninth day. Here I found quite a monument with a large white stone on the top, on which was cut a very good likeness of an ibex, with the inscription, "B.C., 1909. VI." and written on it in pencil a message saying that he had gotten six good ibex. Another day saw me in the main camp, where a good dinner was most welcome after the last few days of hard work on short rations.

I was greatly disappointed not to get a wapiti, but to my mind it is doubtful if I would have gotten a fair one even in a month. At Kuldja and on the road home I saw many hundred shed horns, which are exported, to be used as knife handles, and a number of pairs with the horns still on the skull; but among all these there was not even a fair set. At Kuldja I spent much time looking for a good pair, offering a large price, but could find none. However, at the Tekkes the guide presented me with a splendid set shot some years ago, which are the best set Rowland Ward has ever seen, measuring as they do 56½ inches on the curve, the

next best being a set 54 inches, shot ten years ago by Mr. Church, the author of "With Rifle and Caravan in Chinese Turkestan." While in the cañon where we went for wapiti I saw the tracks of a bear, but could not find him in the thick brush, where no doubt he was living on wild currants and other fruit, and in all our travels we did not see any sign of leopard, either of the common variety or the snow leopard.

If on starting I had known as much about the country as I knew when we left it, our trip would have been much more successful. I have made no mention of the several mistakes we made. First, we did not know until we reached Tashkent that there is for sale a map showing all the post roads with the distances between stations. If we had known that there was a post road to Kuldja from the north, we would have shot in the Altai first. Secondly, in July and August all the rivers are in flood, and at that time very apt to delay travel until a few cloudy days prevent the melting of the glaciers, thus lowering the streams. Thirdly, that Kalmuks are better hunters than any other tribe, and fourthly, that it seems true that the biggest heads are in the highest mountains.

If I were to take the trip again I should go to the Altai in the north for argali (*Ovis ammon*),

then travel to Kuldja by river steamer and tarantas to shoot in the Thian Shan from about the middle of August until October, engaging my men at Kuldja through the Belgian missionaries there—two most agreeable gentlemen who have met every traveler from Littledale in 1882 until the present time. I should buy all my supplies except cocoa and condensed milk at Vernie or Jarkand, and in Kuldja itself. The condensed milk in Russia is to be found at the apothecaries.

I have made no mention of the great number of ibex to be found in these mountains. Often we saw at one time several herds, each with over a hundred ibex. While the actual hunting of ibex is the grandest sport that I have ever had, one must not forget the frequent rainy days or those on which the clouds were low in the mornings, thus delaying the start until it was too late to make a successful day's hunt. On days such as these, time hangs very heavy on one's hands, as it does also in the afternoons on days when we moved camp. Now that I am home, however, I look back with great pleasure on the days spent on the mountains, forgetting the times when we were delayed by bad weather and high water.

Geo. L. Harrison, Jr.

SHOOTING TRIP IN NORTHWESTERN RHODESIA

In the first week of July, 1908, I left England by the Union Castle liner Kenilworth for a shooting trip in Northwestern Rhodesia, arriving at Victoria Falls on the Zambesi just three weeks from the day I sailed. The seventeen-day voyage, broken by a day at Madeira, was very pleasant, the weather being clear and warm, the sea smooth, the passengers most agreeable. The days passed quickly, with cricket on deck in the afternoon and dances gotten up by a lot of young people almost every evening. A comfortable train meets the boat on arrival, and I was soon ascending the mountains back of Cape Town and getting my first taste of South Africa as, wearing overcoat, gloves and traveling rug, I shivered in the cold mountain air, looking at the snow covered peaks on each side of the track.

Then we came to the Karroo, once teeming with game—a great table-land, stretching north from the mountains, with its kopjes sharply outlined in

the clear atmosphere; the same kopjes which caused so many "regrettable incidents" in the Boer War; innocent little hills, looking as if they could not hide a rabbit, but in whose folds had hidden many a commando.

Kimberly and Mafeking, dusty tin towns on a barren plain, were passed, the train reaching Bulawayo the third morning. Bulawayo is built on the site of Lo Bengula's old capital, but the great Matibili chief lies in an unknown grave, having disappeared badly wounded with a few of his head men. Several attempts have been made to find his last resting place, but always without success. Many stories are still told of the autocratic rule of this man, whose lightest word was law, and who kept in touch with every part of his Empire through messengers, who brought him news of each event. Although harsh and cruel, he nevertheless made of the Matibili a nation of perfect physical specimens, brave in warfare and kindly one to another.

Early the following morning I was up to catch the first glimpse of the great Victoria Falls, and while still more than twenty miles away, could see the rising sun shining on the towering column of spray, which was taken by early travelers for the smoke of bush fires.

The railroad crosses the Zambesi a few yards below the Falls, the train pulling in to Livingstone, the capital of Northwest Rhodesia, at 9 o'clock. Here I was met by Finaughty, my hunter, with word that the wagon would meet us at Kalomo, ninety miles further on, so we changed into the train for Broken Hill, stopping only to get my shooting license.

That afternoon we left the train at Kalomo Station, and trekking through the old capital, now deserted, as it was very unhealthy in the rains, camped near a little river at sunset; the fiery ball of the sun disappearing soon after making camp. The little river was only a river in the rainy season, and I did not imagine that we were going to drink the water the servants brought from the pool nearby, as it was quite muddy and had a decidedly grassy taste. However, one soon became accustomed to it, and when it was boiled, it was not so bad. Besides, we had a water barrel on the wagon, which we filled whenever we found extra good water. It is only fair to say that 1908 was an exceptionally dry year. The wagon trekked on at 2 o'clock in the morning, while we cantered on for breakfast, having kept a couple of "boys" with us to carry our beds. I should say that in this part of the world any native servant is a "boy," while any native is a

PACK BULL—TEKKES RIVER.

(See page 314.)

"Kaffir." As I was sitting down to the meal, a couple of Lichtenstein hartebeests walked out a couple of hundred yards away, both of which I dropped, thus furnishing plenty of meat for our men and putting every one in a good humor. It was just twenty-two days since I had left Waterloo station, London.

A word as to my men and outfit may be of interest, although I am afraid the present-day motorist would find our progress rather slow. I had rented the outfit complete through an agent at Livingstone, who engaged for me the men and had stocked the wagon with the supplies I had chosen. First, there was the wagon, a ponderous affair of the old Cape pattern, capable of carrying a load of three tons. This was drawn by sixteen oxen yoked in pairs, the lead oxen led by a Kaffir and the team driven by Finaughty's brother Harry. Each ox knew his name, and would respond when called on, but woe to the ox that shirked his work, for he would have the double thong of the great whip about his ribs at once. William Finaughty and I each had two ponies for hunting, while a couple of black boys as servant and cook, together with four others for hunting, completed the outfit.

The Finaughtys had been born in the country, being sons of William Finaughty, one of the old-

time elephant hunters, whom Selous mentions as having stopped hunting in 1872 because the game was then getting scarce. Both were excellent men, speaking Dutch and Matibili fluently, kind to both animals and natives, but not to be imposed upon, as our men occasionally found to their cost, when the double thong would wind around their ribs for some flagrant piece of laziness. For the next three days we traveled on through sandy ridges, interspersed with little vleys—open spaces that are marshes in the rains—or, more correctly, I should say nights, as the wagon always left camp at sundown, traveling until ten or eleven o'clock, when the oxen were outspanned for a rest of three hours, and then went forward until sunrise. We usually slept until morning, then having a cup of cocoa with a biscuit, and cantering in to breakfast, or more generally taking a loop in search of game, usually getting a reed buck or oribi.

On the third morning we found the wagon drawn up under an enormous fig tree near some native kraals or villages, whose inhabitants were soon flocking about camp, and from them we learned that eland, roan antelope and hartebeest were to be found in the vicinity. On the open plain back of camp were to be seen many oribi, a little antelope about twenty-five inches high with jet

black horns five inches long, not big game, but nevertheless affording very good sport as well as good rifle practice. Next morning we rode out from camp in the cold, raw dawn, accompanied by a dozen or more men from the nearby kraals eager to show us game, which we soon saw in the shape of a solitary bull hartebeest, a wary old fellow, which took some stalking to get and then only after a long time, as the first shot hit him too far back, so that it was midday before he was accounted for.

There was much eland spoor about, so after a bite of lunch we went on, to be rewarded by seeing a little herd of these huge antelopes standing and lying under some mimosa trees in the center of quite a large plain. The absence of cover rendered an approach to within shot impossible, but the more I looked through my glasses at the great slate-colored bull with his bushy frontlet of black hair, the more I wanted his head, and I quickly agreed to Finaughty's suggestion that we should try running them down. Bending low in the saddle, we walked our ponies, one back of the other, directly toward them, in this way getting to within four hundred yards, when the eland began to move off. Then, after them we went as fast as our ponies could gallop, but for the first mile the eland held their own, the fox-colored cows

going easily and jumping over the bushes in a manner surprising for such large animals. I had to ride to one side on account of the clouds of dust which hid the holes of ant-bears and the cracks in the ground; but at last, as they neared the edge of the timber, for which they had been making, the big bull was evidently done, and I was able to race alongside him as he lumbered on.

As I galloped behind the herd, I could distinctly smell the sweet odor associated with these animals, and which comes, I believe, from the fragrant bushes they browse on; the blood, even when dry on the hands, has a pleasant perfume. The ponies we were riding had just arrived from Cape Colony, and had never been used as hunting ponies. The reason for this was that almost all horses in this part of Africa die of horse sickness during the rains—the few which survive being known as "salted" horses, and are worth eight or ten times as much as an unsalted horse. Even these high-priced animals are not immune from the tsetse fly, whose bite is fatal to domestic animals, so that it is more economical on a short trip to use horses brought in from the Cape, when all risks, such as losing them—having them killed by lions or "fly" —are considered.

I had never fired from the saddle, and as far as

I knew my pony had never heard a shot at close quarters, so it was with great misgivings that I rested my rifle across the pummel of the saddle and pulled trigger, with the lucky result that the great bull rolled over with a shot through the heart. I think that everyone who has shot a fair amount of game feels a reaction at the end of the stalk, when the animal you have been striving so hard to get lies at your feet; and in this case the reaction was intensified by the excitement of the gallop I had had. It was some time before the natives came up, and as it was late in the day, we cut off the head, sending it into camp by two men, leaving the others with our water bottles to spend the night there, which they gladly did, to feast on the meat until morning. The next morning the women of the kraals brought in all the meat, which we traded for grain for our men and ponies, while I spent a lazy day about camp superintending the skinning of the heads, and getting a couple of good oribi in the afternoon.

At this camp I got another hartebeest, a couple more reedbuck and a very good roan antelope, which I shot as he lay asleep under a tree—the bullet breaking his neck. Here we left the so-called road—a mere wagon track in the veldt—striking across country to a place where the natives

said there were a few sable antelopes. This meant traveling by day, and the oxen suffered from the heat, as they were very weak from feeding on the young grass which was springing up after the old grass was burned. As usual, we were out early next morning, and soon found an old roan bull standing on the open plain, which stretched, with only a few bushes, from here to the Kafue River. Luckily, some large ant hills gave us the means of getting within range, when a well-placed shot dropped him where he stood. Leaving a boy to keep off the vultures, we sent another into camp with the head, telling him to send out for the meat, while we rode on to look for more game.

A couple of eland cows soon showed up, and as one had a very good head, I galloped after her, only to find it a very different matter from riding into a heavy bull. The chase had been in a large semicircle, and by the time I came to terms with her she was heading for the place I had killed the roan, and I let her gallop on for a mile or so, dropping her within a few hundred yards of the first animal, much to the surprise and delight of the boy on guard. Taking only the head, we gave the carcass to the people of the kraal near which we were camped, and that evening Finaughty called

my attention to the long line of women, some with babies on their backs, bringing in the meat. All were singing, and everybody was carrying at least three times as much as when with groans they carried meat in for us.

Another trek took us into the sable country, but unfortunately the cold wind of the past few days, combined with the hot sun, brought on a fever, so it was a week before I was about. At last I could stand camp no longer, and although rather shaky, we decided to spend the day among some big trees which we saw on a ridge about six miles away. Just before we reached them, however, a sable bull got up not one hundred yards away, standing broadside until I rolled off my pony and took a shot. Down he went, but getting up again, went away very sick. As I was still weak, I gave my rifle to Finaughty, telling him to finish him, which he did in a short time, as he found him too badly wounded to get up. He was a magnificent animal, the upper parts jet black with pure white beneath, and better still, a really good set of horns 46½ inches in length.

At this camp we got a day's good bushbuck shooting in the bed of a river, now almost dry, with water every mile or so in pools. Putting a few boys in the bed of the stream, which was at

least twelve feet below the surrounding country, we walked quietly along about one hundred yards in front of the beaters, Finaughty on one bank, myself on the other, firing at the buck as they raced up the river bed or left the stream to cut across a bend to another part higher up. Our bag was five bucks—we could have killed many more if we had wished—most of which fell to Finaughty, who, armed with my little double 303, made splendid practice of those fast-moving animals. The bushbuck, to my mind, is by far the most sporting of the smaller antelope, carrying a great deal of lead and charging when cornered, while their sharp horns are not to be despised. The native women would not eat the meat for fear of becoming barren.

One day while at this camp we tried to gallop up to a herd of roan, which were feeding with some zebra on a large open plain, and getting as near them as we could, we let the ponies gallop after them at almost top speed. At the start the zebra and roan kept together, but before a mile was past the zebra were done, letting me gallop through them without much trouble; but it was a different matter with the roan. Although I got within twenty yards of the largest bull, I could not get alongside him as he galloped with open mouth,

and I was afraid to shoot over my pony's head, as he had a nasty way of ducking to the shot, most unpleasant in a country full of holes. For three miles we kept this position, and just when I thought the roan was done my pony gave out after blundering over the earth of an ant wolf, while the roan stopped a quarter of a mile further on. The ponies we had were in good condition, being corn fed, but were not by any means fast.

A couple of days' trek from here took us well on to the Kafue Flats—broad, open plains—flooded at certain seasons and covered with the roots of the grass which had recently been burnt off. As far as the eye could reach, the flats extended in every direction, covered with immense herds of zebra, letchwi and wildebeest, while the ground itself was most excellent for galloping over, as there were no holes or cracks of any kind.

Camp was made near the only tree for many miles, and in the afternoon I was lucky enough to drop a good wildebeest at long range. The country being perfectly level, stalking was impossible, as was also riding down the game, for as the animal pursued at once made for other herds, we soon had about 5,000 head of zebras, letchwi and wildebeest kicking up such a cloud of ashes from the burnt grass, that I could not see twenty yards.

The letchwi, however, were easy enough to get, for as soon as they were frightened they would string out in a long line, crossing in front of the horse at almost right angles, so we would gallop at the leader, jump off and shoot. This habit comes from the Mashukulumbi driving them at certain times into a circle, and as this has been going on for years, the buck break out to one side as soon as anyone gets near them. The zebra would have been easy enough to kill, and I wanted a couple of skins, but foolishly kept putting shooting off until we were almost finished the trip, and then of course did not see any more.

On the flats we could shoot only in the early morning and late afternoon, on account of the mirage, which surpassed anything I have ever seen. At noon not only was there game on earth, but great herds of it floating into the air, seemingly close at hand. One day I jumped off my pony to shoot a letchwi, when a troop of zebra galloping by, the pony joined them, leaving me afoot. Finaughty, who luckily was near at hand, gave chase, and in a couple of hours I saw him come galloping back, leading the pony. He seemed so close that I thought he saw me, and it was not until he seemed to be passing us at a couple of hundred yards that my boy, who had come up, called to

him, while I fired a couple of shots. For three hours he galloped around us, sometimes on the ground, more often in the air, but all the time so plain that I could see each pony rise and fall in his stride, and knew that Finaughty had changed on to my pony. At last he found us, and getting on our ponies, we gave them their heads for camp, an experiment I had often tried before. So well did they know where the wagon was, although we had only been there two days, that the big tree appeared exactly between my pony's ears, and this after he had been galloped back and forth all morning.

After I had shot four good letchwi heads, we traveled for a couple of days up the Kafue River, making camp under some big fig trees on a high bank, while the plain behind us was covered with the largest ant hills I have ever seen, many of them over twelve feet high. On the way, we stopped over a day near a large native village, where I shot several duikers, a small buck weighing about thirty pounds; and I may say here that I took a very unfair advantage of them. The bush around the village swarmed with duikers, which were hunted a good deal by natives armed with spears, and I suppose the little buck preferred this to being hunted by the cat tribe further away.

Anyhow they had worked out the range of a spear so exactly that when started from a clump of bushes or a patch of long grass, they would run for a hundred yards, and then walk quietly away, giving plenty of time to look at their horns through a glass, as well as for a shot. Near the camp were several small herds of puku, a kob or waterbuck, about the size of a whitetail deer. Living on the open plain without any cover, over which the wind blew with great force, raising blinding clouds of dust and ashes from the burnt grass, they were wild and hard to approach. Each buck had a herd of about thirty does with him, thus adding greatly to the difficulty of getting a shot, as he was generally in their midst, and I must confess to a couple of amazing flukes when I got a couple of good heads with a shot each through the heart at over three hundred yards in a gale of wind. I mention this to show that sometimes the thousand-to-one chance comes off.

One evening a native came to camp with the report that he could show us buffalo within a long day's march, and in a country where we could use horses. This sounded too good to be true, and I was careful to impress on him that we would adhere strictly to the agreement which we always made in such cases, namely, a handsome present if

we were shown the game or recent spoor, and a present of twenty-five lashes with the ox whip in case it was all a fake. Natives would often come to camp offering to show us certain kinds of game, either in order that they might get a present in advance, or that we might be persuaded to shoot them some common variety of buck when we could not get what we were after. This particular native did not bolt in the night when we explained our terms, as usually happened, so next morning we took some boys to carry our beds and food, and the rising sun saw us under way. Until noon we traveled under a blazing sun over a parched plain, the wind from which was like blasts from a furnace—then a rest, and on again at one in the terrific heat, until, just as the sun was setting, we came to a little knoll, the only landmark in sight, where our guide said he had found water a week before. There was no sign of it now.

Nine o'clock found us still traveling, with no sign of water, but soon afterward we came to a depression, where we dug a little well, getting a cup of liquid mud each, with every prospect of an uncomfortable night, as we were now suffering as much with the cold as we had previously done with the heat, our boys having fallen far behind with the food and blankets. With difficulty we man-

aged to collect a little dry grass to make a momentary blaze, which, together with a few shots, brought the men up by midnight, very tired and thirsty.

The next morning we saw far off the tops of a small clump of trees on a rise of ground, where our guide assured us he had seen buffalo a week before, and these we reached about noon, the tired porters not getting in until late. Luckily, there was water, but absolutely no sign of buffalo, and the guide became very impertinent; but as the tired porters staggered in one by one, he changed his manner on my threatening to turn him over to their tender mercies. At last he confessed that he had not seen buffalo for three years. I gave him his choice of being turned over to our men, taking a whipping or carrying a load back to camp, which latter he chose, and I need not say that the load the men made up for him was far from light, and that a very chastened native arrived at the wagon late the next evening, and as soon as he had deposited his burden, started for his kraal.

Upon our return, we found a native awaiting us, who offered to show us buffalo in another direction, so after a day's rest we went with him. He told us that we would have to make a dry camp the first night, but would reach a pan or pool the

next morning. The mere fact of knowing water is scarce makes one thirsty, and I could have done with more that evening, but did not worry, as we expected to reach water early the next day. I should say that the reason we did not go on to the water the first day was because we hoped to run into buffalo grazing near the pan in the morning.

We left camp after the first sign of dawn, and soon found fresh spoor of the herd, which we followed until it entered a dense thicket of thorns many miles in extent. By this time we were quite ready for breakfast and water, so made for the pan, which we found almost dry and absolutely undrinkable for a white man, as its stench was unbearable.

Our men told us that we could buy water from a well near a kraal, a few miles distant, and we sent at once for some, in the meantime sitting very thirsty under a thin tree, while I thought of the many times I had been in a bath tub without drinking the water, and Finaughty in a hoarse voice made remarks on the man who wrote the hymn about "Africa's Sunny Fountains." At last the water arrived, muddy, smelly, but drinkable with tea, and at this camp we stayed two weeks, the first part of which we were out before dawn trying to catch the buffalo which drank at the pan every

night before they got into the bush, but without success. Several times we followed them in—an unpleasant experience, as most of the time we had to crawl on all fours, and in each case a buffalo we had passed close by without seeing got our wind and alarmed the herd. At last I had my men build a platform in the branches of a tree on the edge of the water, and here I determined to spend the night. The platform was made of poles across two branches about twenty feet from the ground, and here with blankets, water bottle, rifle and field glasses, I took my position about 4 o'clock in the afternoon, the men returning to camp a mile away.

No sooner had the men left than the game began coming in to drink, first a little herd of roan appeared from among the open bush, not seeming to walk out like domestic animals, but occupying a place that a moment before was vacant, like a magic lantern picture on a screen. For over an hour by my watch they stood, getting up courage to face the chance of lions in the reeds or the many game pits built in the surrounding banks—pits eight feet long by three feet wide and six feet deep, tapering in a V to the bottom. At last they walked down and drank of the liquid mud, raising their heads at frequent intervals while doing so, then hurriedly walked away. Zebra, hartebeest

and reedbuck also came, while I had hopes of a leopard or lion before dark, but was disappointed. All the time, doves in untold thousands streamed to the water from every direction, settling so thickly about the water that many were hovering in the air awaiting their turn to drink. At last night came, the sun having disappeared from view long before behind a bank of smoke from burning grass and dust that the wind had raised on the open plains. Unfortunately there was no moon, but under the cloudless sky the stars shone brightly, and one's eyes soon became accustomed to the night, while with the increasing darkness the little pan seemed to grow in size until it looked like a lake. During the first part of the night, game came in to drink, but were invisible, as their color matched too well with their surroundings; however, I could hear them in the water, and my ear could soon tell by the noises their feet made in the mud how big an animal was in the pool. About midnight I heard far off the grunting sounds continually made by buffalo, and as they approach nearer, the clinking of their hoofs as they walked, until at last the herd filed in, immediately walking into the center of the shallow water to drink the churned up liquid mud. They were so closely packed together that I could not single any one out, until

at last a large buffalo walked toward my tree, when I gave it both barrels of my 450. Instantly the herd stampeded, and I thought that I had missed, but I soon heard from near by the low moaning bellow which a buffalo usually makes as it is dying. The noise of my shots had awakened the camp, and the men, knowing well the meaning of the noise the beast made, came down with a lamp, which soon showed us a good bull lying dead on the bank. The next night I killed another in the same way, and having had enough of this rather unsportsmanlike method of hunting, we moved a march further on to where there were said to be kudu. On the way I picked up a very fine pair of kudu horns, which had been killed by a lion, and in the following week saw some very fine kudu bulls, but did not succeed in getting any owing to a run of very bad shooting, combined with a large and very painful liver, the result of fever. So severe was the pain that I could not bend nor take long breath, while all the time my side ached as though my ribs were broken. Much as I hated to leave the kudu country without getting one of the several good heads, both Finaughty and I were feeling so badly that we thought it unwise to remain any longer, so moved back to where the wagon was standing on the Kafue River. Here we found that

a lion had tried to take one of the lead oxen as he lay sleeping fastened to the trek chain, and he was badly clawed about the head and neck. It must have been either a very old and feeble lion or a young one, unskilled in this method of slaughter; but as the ground was baked very hard, there were no tracks to tell what size of a beast he was. While in the kudu country I shot a couple of Crawshay waterbuck, both having good heads.

Of course, I was very anxious to get a situtunga —an antelope seldom shot by white men. Inhabiting as it does the dense reedy swamps of the rivers, it is chiefly killed by the natives during the floods, when it is speared swimming from island to island. When word was brought that a situtunga had been seen in a large tract of reeds some distance inland, we at once rode over, only to find that we were just too late, the buck having been driven out by burning the now dry reeds and pulled down by dogs. In fact, much to our disappointment, we met the natives bringing in the head, which I bought for a few yards of cloth. As my time was up, we trekked back to Kalomo, having shot good specimens of eland, buffalo, roan, sable, wildebeest, waterbuck, both common and Crawshay's, Lichtenstein's hartebeest, bushbuck, letchwi, puku, oribi and duiker.

The measurements of the best specimens of the various heads, made by Rowland Ward in London, some months after when the heads had shrunk, were as follows:

	Length on outside curve.	Circumference.	Tip to tip.
Hartebeest	20¾	13	13¼
Cape Duiker	4½	2	2½
Cape Oribi	5⅜	1¾	2⅝
Crawshay's Waterbuck	26½	8¾	15½
Letchwi	32½	7¾	19¾
Puku	16½	7¼	5¼
Reedbuck	13¾	6½	10½
Sable	46½	10¼	11¾
Roan Antelope	28¾	8½	13¾
Roan Antelope (Cow)	28¾	7¾	15½
Bushbuck	14⅞	5½	6¾
Eland	30¼	13	22½
Eland (Cow)	29	8¼	14¾
	Widest outside.	Breadth of palm.	Tip to tip.
Blue Wildebeest	23¾	4	14¾
Buffalo (Bull)	35	8¾	26½
Buffalo (Cow)	35	4½	21

My battery on this trip consisted of a double-barrel ejector 303, a 450 double-barrel ejector, and a rook rifle. All the game except the buffalo were killed with the 303, on which was a detachable telescope sight. This I found very useful in dim lights.

Geo. L. Harrison, Jr.

PENINSULA BEAR, CAPTURED AT MOELLER BAY, ALASKA.

CONDITION OF WILD LIFE IN ALASKA

The opening of the twentieth century found the game in the old territories of the United States well on the road toward the conditions that precede extinction. The bison had been practically gone for two decades. The mountain sheep had been exterminated throughout a very large part of its original range, and the number remaining in remote mountains was sadly reduced. The wapiti, while still living in herds numbering many thousand, was rapidly withdrawing to the vicinity of its last refuge, the Yellowstone Park. The prong-horn of the plains was disappearing with increasing rapidity, partly because of the increasing use of the barb-wire fences on its former ranges.

This rapid diminution of the game animals of the United States was the inevitable consequence of the settlement and occupation of the best grazing lands. While there remain mountains where the game is relatively undisturbed, so far as the killing of individuals is concerned, and while these ranges in summer appear well adapted to sustain a

large and varied fauna, their actual capacity to sustain life is limited to such animals as can there find sustenance during the heavy snows of winter.

Before the arrival of white men, the animals, which lived in the mountains during the summer, during the cold season sought refuge in the sheltered valleys and foothills. These favored localities, however, were at once occupied by settlers, and the game was deprived of its winter feeding grounds. This has done more in recent years to exterminate the large animals of the West than the actual shooting of individuals.

During the closing years of the nineteenth century the American people had obtained no little experience in game protection, and had embodied it in Federal statutes and the game laws of the various States. Of all the regulations established for the preservation of wild life, the most practical and effective have been found to be, first, the prohibition of hide and head hunting; second, the prohibition of market hunting; third, and most important of all, the establishment of sanctuaries where game can roam and breed absolutely undisturbed. The most conspicuous example of such refuges is the Yellowstone Park, the success of which is admitted on all sides.

At the end of the century, the gold discovered

in the extreme northwest of Canada and in Alaska brought these territories suddenly before the public eye. Here was a district of enormous extent, lying at the extreme limit of the continent, and populated by a large and varied fauna, which was practically undisturbed. During the last ten years, thousands of prospectors and miners have gone into Alaska, and in many places worked havoc with the game. On the whole, however, the destruction of the game has not yet gone far enough to permanently injure the fauna of the region, provided the matter of protection is taken in hand scientifically and *in the immediate future.*

In Alaska we have a gigantic preserve. In it there are not only several species rich in the numbers of their individual members, but also certain species which in point of size appear to be the very culmination of their respective genera, as for example, the giant moose. The brown bear group of southern Alaska certainly contains the largest known bears, not even excepting the great fish bear of Kamchatka, or the extinct cave bear of Europe. The largest known wolves are found in northern Alaska, and a wolverine of exceptional size has recently been described. When this great game region was first opened up, immediate legislation was needed to protect the animals from the delib-

erate onslaught of hide hunters in southeastern Alaska; of head hunters, who attacked the moose, sheep and caribou of the Kenai Peninsula, and of the market hunters generally throughout the coast regions. A game law, which certainly proved effective in making it difficult for sportsmen to hunt in Alaska, was passed.

The general principles of game protection, applicable to the situation in Alaska, are simple. It should be clearly understood that the game of Alaska, or of any other region, does not belong exclusively to the human inhabitants of that particular region, and that neither the white settlers nor the native inhabitants have any inherent right to the game, other than that conferred by law. The interest of the entire people of the United States, and to some extent that of the civilized world, is centered in the continued existence of the forms of animal life which have come down to us from an immense antiquity through the slow process of evolution. It is no longer generally conceded that the local inhabitants of any given district have a divine commission to pollute streams with sawdust, to destroy forests by ax or fire, or to slaughter every living thing within reach of rifle, trap or poisoned bait. This must be thoroughly understood in advance. The game and the forests

belong to the nation, and not to the individual, and the use of them by the individual citizen is limited to such privileges as may be accorded him by law. The mere fact that he has the power to destroy without interference by the law, does not in itself confer a right. The destruction of game is far more often effected by local residents than it is by visiting sportsmen, but the chief evildoer, and the public enemy of all classes, is the professional hunter, either Indian or white, who kills for the market. Worse still, perhaps, is the professional dealer in heads and antlers, who employs such hunters to provide game heads for the decoration of the banquet halls of the growing class of would-be sportsmen, who enjoy the suggestion of hunting prowess conferred by a selected collection of purchased heads, mixed in with those of their own killing.

However efficient the game law may be in limiting the killing to a given number of individuals, and to certain seasons of the year, or, better still, to the adult males of certain species, the only permanently effective way to continue in abundance and in individual vigor any species of game is, to establish proper sanctuaries, as thoroughly controlled as the Yellowstone Park, and these must contain both summer and winter ranges. In such

areas no hunting or trapping—perhaps even no dogs—should be allowed; and in them the game will then retain its native habits and breed freely, while the overflow will populate the adjoining districts. This principle has been applied with brilliant success in East Africa, where a protected strip of land on either side of the Uganda Railway is now absolutely swarming with game.

Such preserves should be set aside in Alaska, while land is yet of little value. Districts should be selected where there is little or no mineral wealth; and there are abundant areas of that description in Alaska. Certain islands should also be utilized, particularly in southeastern Alaska.* Beyond doubt such refuges will be ultimately established, but it is to be hoped that it can be done before the game has been decimated and the forests cut down or burned.

Another element in game protection is the relation of the Indian to the wild game. This problem

*The question of Alaska game refuges has received the attention of the Game Preservation Committee, and various plans for establishing them have been given careful thought. No announcements on the subject have as yet been made by the Committee. One of the last acts of President Taft's administration was the setting aside by proclamation the Aleutian chain of islands for a game and fish preserve. Reindeer have been placed on the island of Afognak, which has long been a refuge.

is not as serious in Alaska as it is in parts of British Columbia and the Canadian Northwest, and is settling itself by the rapid decline of the Indian population. Indians, after they have been in contact with white men, certainly are extremely destructive to animal life. An Indian with a gun will shoot at anything he sees until his ammunition is gone. These people seem to be devoid of any idea of economy in slaughtering, even though they know that they are certain to suffer from starvation as a result of their indiscriminate waste of game. Any legislation, therefore, that gives Indians privileges superior to the whites is based, not on scientific, but on sentimental considerations.

To exempt the Indians from the limitation of game laws in a district partly inhabited by white men, simply puts the white hunter at a disadvantage, and always results in a contempt for the law on the part of the latter. If an Indian is allowed to hunt freely during the closed season, he is usually employed by whites for market hunting. The game he kills finds its way to the white man's market rather than to the tipis of the tribe, or is used as food by the Indian's dogs, with the ultimate result that the food supply of the entire tribe is killed off for the benefit of a few hunters.

In the abundance of the salmon the Indians of

Alaska have a food supply which is available throughout the most of the district, and they are consequently not entitled to any special privileges. Alaska is, and for a long time should remain, the ward of the Federal Government—however distasteful this may be to some of its inhabitants. It is peculiarly the duty of the Federal Government to preserve and control the wild game of this national domain, because the people of the United States as a whole are the ones most interested in its preservation. It is to Congress, rather than to the residents of Alaska, that we must look for the enactment and enforcement of suitable laws, to seize the last great opportunity to preserve our native fauna on a large scale. In the future, no doubt, we shall restore game and perhaps forests to many districts now stripped of both, but in Alaska we have our last chance to preserve and protect rather than to restore.

The claim made by many Western communities, that local State laws are sufficient for game preservation, is constantly disproved by the inability of several States to control the small game supply left within their own borders. Colorado is an example of the diminution of game under State control. In Canada, British Columbia prides itself on the efficiency of its game laws, but the game is vanish-

ing there rapidly, although in the eastern portion of that province it is the Stoney Indians, rather than white hunters, who are the chief destroyers.

From the point of view of game conditions, Alaska is divided into two entirely distinct regions. First, the Coast Region, from Portland Canal along the base of the mountains northward, and then westward, to and including the Aleutian Islands.

The second region comprises the interior beyond the mountains, and is co-extensive with the region drained by the Yukon and its various branches.

In these two regions conditions differ widely, and practically all the sportsmen who go to Alaska hunt in the coast region. Those who cross into the interior are likely to confine their shooting to the headwaters of the Yukon in Canadian territory.

The game on the coast between Portland Canal and Mt. St. Elias consists principally of bear and the small Sitka deer. On the mainland, close enough to salt water to be easily reached, white goats are abundant.

To reach moose, caribou or sheep from the southeastern coast, requires a journey over the mountains into British Columbia, which is seldom attempted, except from Fort Wrangell at the mouth of the Stikeen River.

West of the St. Elias Alps and around Cook Inlet, the principal game animals are the giant moose and white sheep of the Kenai Peninsula, the caribou and bear of the Alaska Peninsula, and the bear of some of the large islands, notably Kodiak. It is in this district that the game laws require close attention and rigid enforcement.

In the vast interior the strict enforcement of game laws is not so important, because the entire region drained by the Yukon is covered with heavy forests, and the population is largely confined to waterways.

Black bear, lynx and moose are everywhere abundant, but seldom seen along the Yukon River. Sheep are accessible from points on the Upper Yukon, notably at Eagle, and caribou occasionally cross the river in herds at that point.

The game laws for this district should aim principally at the prevention of slaughter on a large scale for market purposes, and of hide and head hunting. There are very few sportsmen, and the miners and prospectors in the interior are difficult to control.

Wolves.—Wolves are abundant at points on the coast and throughout the interior. In the north, around the region drained by the Porcupine River, they assume very large dimensions, some skins

measuring nearly six feet from nose to tip of tail. A large percentage of these wolves are black. Coyotes have pushed north from the American boundary as far as White Horse, at the headwaters of the Yukon River.

Foxes.—Red, cross, silver and black foxes occur in the interior. The two latter command enormous prices, in some cases as high as $1,000 for one skin. These animals are being killed off by the use of poison in the hands of white men, and many more are destroyed than are recovered. The natives are afraid to use poison, owing to several tragedies which have occurred from its careless handling.

Along the Arctic and Bering Sea coast white foxes abound, and blue foxes are found from the mouth of the Yukon River southward, their center of abundance being Nelson Island, in Bering Sea, near the mouth of the Kuskokwim River.

Bear.—Bear are extremely abundant in Alaska, especially on the Pacific Coast. Their great numbers are probably due to the fact that they have an abundant food supply in the great schools of salmon that ascend the rivers. Before the arrival of the salmon, these bear, like the grizzlies of our own Rockies, feed on spermophiles and grass. During the salmon season they are easily found

and killed by hunters, and as this occurs during the summer season, their fur is of very little value. The period of the salmon run, in fact the entire summer, should be made a closed season for bear throughout this district. Owing to the recent decline in the price of bear skins, these splendid animals have been hunted rather less than formerly.

The black bear occurs commonly in Vancouver and Queen Charlotte Islands, but as far as I know not in any of the large islands north. They are, however, found along the mainland of the southeastern coast, and probably everywhere through the interior in the timbered region. The blue or glacier bear is found rarely around the glaciers of the Mt. St. Elias region.

Grizzlies occur in considerable numbers along the mainland of the coast as far north as Skagway, and are found in relatively small numbers throughout the interior. There are very few grizzly bears on the Seward Peninsula, and I was unable to get any skulls or to obtain any definite data concerning them. This bear may prove an interesting type if a sufficient series of specimens could be obtained.

There are huge bears found on the large islands around Juneau and Sitka, which have been referred to two separate species, and their numbers are indicated by the fact that about seventy-five animals,

the majority being of these species, are killed annually around Juneau.

The brown bear group extends from this point westward along the south coast of Alaska, out into the Alaska Peninsula. Several species have been described, but they can all be grouped together under the common designation of Alaska brown bear. They extend far up the Copper River, but I could not obtain any definite record of the occurrence of members of this group north of the mountain region and in the area drained by the Yukon.

Polar bear occur quite abundantly north of Bering Straits. Occasionally they are found on the Seward Peninsula, and occur as far south as St. Matthew's Island, in the middle of Bering Sea.

Caribou.—Caribou of several species are more or less abundant throughout Alaska, and occur in herds around the Upper Yukon, with localities of especial abundance, such as the head of Forty Mile River. An examination of the antlers found at various points, from the Upper Yukon River to the sea, would indicate an almost complete transition of antler type from the Woodland (Osborn) caribou, to the Barren Ground (Grant) caribou. A further study of the caribou of this region will ultimately lead to a merging of the various species. The work of Charles Sheldon in the study of sheep

in the Mt. McKinley district, has broken down the specific distinctions of the sheep in Alaska in the same way.

That caribou were formerly very abundant on the Seward Peninsula is proved by the abundance of bleached skulls and cast antlers, apparently about twenty or twenty-five years old. The cause of their disappearance is as yet unknown. The possession of firearms by the natives, first obtained from whalers, is by some considered as the cause, and by others epidemics. The natives themselves claim that about a generation ago the winter cold continued throughout an entire year, and all the caribou perished in consequence. All these explanations leave much to be desired, as there is an abundance of caribou in the wooded district at the eastern end of the Peninsula, and the explanation of the fact that in the course of all these years the caribou have not wandered back to their old feeding grounds remains to be given. A few scattered individuals are all that have been seen since the founding of Nome.

Domestic reindeer have been introduced into Alaska successfully, and form a valuable resource for the natives. I, however, saw nothing of them. Their meat forms a part of the menu in the variout restaurants at Nome.

Moose.—Moose occur everywhere throughout Alaska within the timbered region, but seldom leave the shelter of the woods. They extend close to the Arctic Ocean in the north, and occasionally wander far out on the Alaska Peninsula. The giant moose occurs on the Kenai Peninsula, but it is probable that this animal is only an outlying member of the type species, which in that district, for some unknown reason, produces antlers of extraordinary size and complexity. A few instances of moose with antlers of great size are known in the interior, but it is a matter of doubt whether or not in bodily size the Kenai Peninsula moose excels his kin in the interior, or in the Yukon Territory.

Mountain Sheep.—Sheep occur everywhere in the mountain regions throughout Alaska; being especially abundant in the country around the Upper Yukon and around Mt. McKinley, extending thence as far south and west as the Kenai Peninsula. They also occur on the Upper Porcupine River, but the great Yukon Valley in its lower reaches is without sheep.

Mountain Goat.—Goats occur throughout the mainland from the United States boundary north, but are never found, as far as I know, on any of the islands lying close along the coast in southeast-

ern Alaska. In size and abundance the mountain goat appears to culminate in the region around the White Horse Pass, where they are very numerous They can still be seen within a half day's march of Skagway. They occur in abundance around the St. Elias Alps, and extend as far west as the head of Cook Inlet. I only heard of one doubtful case of Kennedy's goat, the horns of which have been described as lyrate.

Walrus and Whales.—Walrus are found every winter and spring in the Bering Sea, and many are killed at that season by the natives for the ivory, which sells at a dollar a pound. The walrus formerly extended down to the Alaska Peninsula and Aleutian Islands, but the rookeries there have been destroyed. This great mammal should receive absolute protection in the entire Bering Sea region, except on the Pribilof Islands, where only a few are annually killed by the natives.

Whales and porpoises occur in great abundance along the inside passage between Puget Sound and Lynn Canal and are interesting and harmless. There are now two plants on Vancouver Island very profitably engaged in killing whale of all sizes and converting them into fertilizer. A new plant has just been established near Juneau, where whales are especially abundant. It would be an

easy matter to protect these animals, especially with the co-operation of the Canadian authorities, throughout the inland passages and oceanward as far as the three mile limit. Protective legislation of this sort should be urged.

Fossils.—In any review of the present game conditions of the vast territory comprised within the districts of Alaska and the Canadian Territory of the Yukon, a few remarks on the former occurrence of related forms are not without interest.

Bones of large extinct mammals, more or less fossilized, occur in abundance throughout the entire valley drained by the Yukon River from Dawson down, and the valleys of the Colville and Porcupine Rivers, and in still greater abundance on the Seward Peninsula, that projection of Alaska which reaches to within sixty miles of Siberia. Throughout this enormous area remains of the mammoth and bison occur in such numbers as to indicate former herds of great size. We find also a smaller number of remains of horses, sheep, two species of musk-ox and a camel, together with a deer closely related to our wapiti. Teeth of mastodon, although very rare as compared with those of the mammoth, indicate the former existence of that animal. It is perfectly evident that in times comparatively recent, from a geological

point of view, perhaps from 10,000 to 25,000 years ago, Alaska had a fauna of large mammals not altogether dissimilar to existing animals of North America and northern Asia.* The mastodon and mammoth, of course, no longer exist on this continent, but the latter is a true elephant, well fitted to meet boreal conditions, and the horses in Alaska were probably not unlike the wild Prjevalsky horses of Asia to-day.

The ancient Alaska deer were probably related to the wapiti, which swarmed over our American plains within the memory of living man, and the fossil remains of caribou and moose do not indicate any great departure from the living forms of those animals.

Sheep still occur abundantly in Alaska, and the musk-ox, while no longer found in Alaska, inhabits the no less inhospitable regions of the Barren Grounds of North America, and the land masses lying still further north. The extermination of this animal in Alaska is very recent.

Bison skulls are quite common, and indicate an animal much larger, but probably ancestral to our

*A mammoth with some skin and hair intact was found by my companion at Eschscholtz Bay in the summer of 1907, and the specimens are now in the American Museum of Natural History, New York.

living buffalo. The history of the American bison, which has a very large range of migration, suggests that it is quite possible that these animals did not habitually spend the winter in Alaska, but on the approach of the cold season migrated southward to warmer climates, or crossed into Siberia on the former land connection over what are now Bering Straits. If this hypothesis be correct, the climate of Alaska during the Pleistocene and recent periods, may not have radically differed from its climate of to-day.

The extension of placer mining in Alaska, when conducted in a more systematic manner than at present, will undoubtedly bring to light other forms of large mammals, most probably types related to those already mentioned, together with the remains of carnivorous types.

The above article was written in 1907, and before its publication in the current Boone and Crockett Club Book these notes should be added:

The range of the brown bear of Alaska, which has long been a disputed question, is now known to extend as far north at least as the Kobuk River, within 300 miles of Point Barrow, and it is probable that further investigation will still further extend this range.

The remarks about the walrus and whales have been unfortunately confirmed by the event. Norwegian whalers are now operating against these huge and unwieldy animals in the waters of Bering Sea, and unless immediate steps are taken to protect them by treaty, it is probable that they will soon join the *Rhytina* of the same region in the list of exterminated animals.

Whaling is now carried on in waters of the Inland Passage with great activity. Protection through international action here also is greatly needed to save these mammals. It is a pity that the work, energy and time expended over the miserable fur seal controversy, now raging, could not have been applied also to the preservation of these forms of marine life, which are far more in danger than the fur seals, since the latter, having a commercial value, were bound to attract attention sooner or later.

Alaska has now a Territorial Legislature, which will undoubtedly claim the right to regulate its own game laws, but if control of the making and enforcement of the regulations be turned over to the residents, without Federal control, it will be the death knell of many species of the game. The men who live in Alaska constitute a floating population—for the most part of miners who have no

permanent interest in the country in the sense that farmers are attached to the soil. The stable elements of the population are chiefly the keepers of local saloons or road houses. Miners are accustomed to live off the country, with little care for its future. It would be extreme folly to entrust to such a population the formulation and enforcement of complicated game laws, which require a thorough knowledge of the habits of the animals.

The Alaskans have certainly no right to complain of the present laws, which permit any game animal or game bird to be killed *by natives* at any time for food or clothing, and by *miners or explorers at any time* when in need of food. Prospectors, wandering about the country, should of course be allowed to kill what they require for their daily needs, but it is not easy to see why miners, or men working in an established mining camp, should be allowed to kill wild game during the close season, while those engaged in building railroads, or operating them, or keeping saloons, are forbidden the privilege.

The jealous consideration of our legislators for the poor Indian and for the honest miner has gone too far, and the only effective remedy is game refuges. These are slowly increasing in number, and several additions have recently been made—

notably on the Alaska Peninsula. The number of game and bird refuges in Alaska should be increased, and this is a matter well worthy of the attention of the Boone and Crockett Club.

More wardens are required rather than more law. Indians should be kept well in hand while moose hunting, as they kill cows in preference to bulls, on the ground that the meat is more tender and consequently more salable.

The present game laws operate perfectly against visiting sportsmen, and apparently this is the only feature that commends itself to the natives. It is the same old story, the natives kill the game recklessly and then blame the visiting sportsmen. The cowboy, miner and farmer killed the game in our West, and are killing it now in Alaska, ably assisted by the Indian with modern rifles.

As an example of what we may expect from a local administration of the law, the annual reports of the former Governor of Alaska, Walter E. Clark, are edifying reading. This gentleman, who is deliciously ingenuous, demands that the enforcement of the law be turned over to the local Legislature, which he is sure is qualified for the job. When Senator Dillingham visited Alaska, some years ago, and consulted the prominent citizens of the various towns along the Yukon about the game

of Alaska, he received the startling information that the bear of Alaska are so numerous that they could not be exterminated in a century, and so ferocious that only numerous and heavily armed parties dared to venture into the interior. On his return the Senator recommended the practical repeal of all the Alaska game laws, an effort which was defeated by the Boone and Crockett Club.

In the same manner the present Governor, having consulted the local bar-room bear hunter, is greatly concerned about the danger to humanity from brown bear. He uses in 1911, the following language, after stating that the close season for brown bear should be repealed:

"The least that can be said of the legal protection of brown bear in Alaska is that it is an absurdity. If this protection is continued, the menace to human life will be still more serious, and agriculture and stock raising in some of the most favored regions in the Territory will be discouraged.

"The Superintendent of the Government's experimental stock farm on Kodiak Island, makes a strong appeal for the protection of settlers and live stock against the ravages of brown bear, declaring that it has become a question whether we shall have a game preserve or a great agricultural and stock raising region on Kodiak Island."

The basis of this story seems to be an attack on sheep by a single brown bear, which was promptly killed by the owner of the sheep. The brown bear on Kodiak Island is unfortunately so close to extinction that it is probable that in a short time a specimen will be of considerably more value than many sheep. The recent ash shower on this island from Katmai volcano has probably worked great injury to them, if it has not entirely destroyed them.

In 1912, in his report on the game, the learned Governor comes back to the subject in the following language:

"Attention has been invited repeatedly to the condition which prevails on Kodiak Island as a result of the legal protection of the brown bear. Kodiak is a very large island, having a larger population than any other in Alaska of equal size. Some small farming and some rather extensive stock raising have been undertaken. Yet the cattle and sheep are frequently being killed by the vicious and increasingly plentiful brown bears, which are protected by a three months' closed season, and human beings are not infrequently attacked. Generally speaking, the conditions of human habitation outside the larger towns in Alaska are far from easy, but when the hard conditions of life are en-

hanced by the continued legal protection of wild animals, which at the best are a pest and at the worst a fatal menace to human life, popular respect for law and the administration of government is not increased. The long list of legal outrages which are perpetrated by the present game law would be promptly abolished if Congress, in its wisdom, had seen fit to entrust this simple and elementary subject of legislation to the new Territorial General Assembly."

As a further evidence of this gentleman's qualifications as game expert and zoologist, I quote still further from his report of 1912:

"An intimation of the present incongruous condition is given when it is stated that brown bears are denominated as game, and are protected by the game regulations, while black bears are regarded as fur-bearing animals, subject to the regulations administered by the Bureau of Fisheries. Yet the workings of nature are such that of the same litter some bears are black and others are brown."

Thus the cinnamon bear of the West has become transformed into the gigantic Alaska brown bear through the "mysterious workings of nature."

It is to be hoped that the new Governor of Alaska will inform himself on the facts and acquire some elementary knowledge of the subject before

he attempts to make recommendations on the game laws, but it is doubtful whether any new Governor will ever attain the pinnacle of grotesque absurdity occupied by the picturesque Walter E. Clark.

Madison Grant.

New York, May 10, 1913.

DEER HUNTING IN CUBA

The love of hunting is inherent in man, and deer hunting is a sport that numbers among its votaries men in all walks of life. It possesses a peculiar charm, that, once absorbed by the system, cannot be eradicated.

Those who have not experienced it cannot at all appreciate the great pleasure to be derived from killing big game in a wild country, surrounded by undisturbed nature—the enjoyment increasing with the danger and the uncertainty of the hunt. The mere killing of an animal, however, does not convey pleasure or constitute sport, for man is not instinctively blood-thirsty; but the triumph of conquering and capturing an animal, which pits its cunning and speed against your endurance and skill, gives to the sport a zest so keen that it sets one's nerves a-tingle. The thrill experienced in seeing one's first deer go down can hardly be described in words.

All deer hunts are naturally more or less alike, and accounts of those devoid of special accident or

incident are likely to be monotonous. I have already written an article on deer hunting for the Boone and Crockett series, yet I trust that this new setting will excuse another.

Writers have sadly neglected the possibilities of Cuba from the sportsman's view-point. Few Americans have hunted there, and I have heard many sportsmen express surprise to learn that good deer hunting was to be had in this charming country of romantic history.

In Cuba, as in the United States, deer hold their own better than other large game, and although the warfare against them has been constant, they are still found throughout the island.

In 1906, it was not unusual for a hunter to leave Havana in an automobile on a deer hunt in the morning, and the same night return to the city with a deer. In fact many deer have recently been killed within six or eight miles of Havana. Good hunting has always been had along the southern coast, and in the provinces of Pinar del Rio, Santiago and Puerto Principe, and in the neighborhood of Guantanamo I found deer abundant. Comparatively a few years ago large numbers of hides were annually exported from Bayamo. In the Isla de Piños, Isla de Furiguana and many other small islands that at low tide are almost connected with

ADULT MALE AND FEMALE ELEPHANT SEAL, GUADALUPE ISLAND.
The male is in threatening attitude. His length was 16 feet.

ADULT MALE ELEPHANT SEAL, GUADALUPE ISLAND.
The scarred neck, calloused by much fighting, is well shown in this picture.
(See page 406.)

the mainland by a series of sand banks, deer were plentiful.

Among the first to hunt deer in the island were the French, and their influence in hunting and shooting matters is still evident, especially in the eastern end of the island.

Although the law establishes a close season from February 1 to September 1, and the penalty for killing out of season is from five to fifty dollars and the confiscation of arms, the law is not enforced and is little regarded. Were the hunters armed with modern guns and possessed of the energy and keenness of the average American sportsman, the process of extinction would be rapid. As it is, the ruinous, out of season, wanton slaughter is kept up with painful regularity. Some fair, true sportsmen kill only in season, and then in moderation; but I met and heard of others to whom the fair code of a true sportsman was unknown. Some, for instance, were guilty of killing a doe carrying her fawns.

The Cuban deer (*venado*) belong in the same group with our Virginia deer. Though somewhat smaller than the ordinary whitetail, they are larger than the Florida and Mexican deer, but have the small antlers and scanty pelage of the latter.

It is generally believed that deer were originally

brought from Jamaica and Hayti, where they were introduced by the French and English. My belief is they came originally from the United States and Mexico. In a tour of Jamaica, I found no one who had ever indulged in deer hunting in that island.

The Cuban deer average 36 inches in height and weigh from 80 to 85 pounds. The largest I killed weighed 130 pounds, and was considered quite a large one. His antlers, now occupying a conspicuous place in my library, would indicate, from size of beam and tine, an animal even larger. These deer have unusually large and lustrous eyes, and with their exquisite symmetry and graceful movements, are a delight to the eye of the hunter accustomed to the stately deer of the North—the big whitetail and blacktail. The flesh is rather dark, with a very fine grain and a flavor peculiarly its own, not unlike that of our blacktail. The brains, properly stewed, are esteemed a luxury.

Their habits are similar to those of the whitetail, and like them, they are good swimmers. When hard pressed by hounds they invariably make for water at the second or third break from the timber.

They run with a light, quick, buoyant movement, with flag up, and seldom bound like the mule deer, except when suddenly surprised—at which

time they have the appearance of being much larger than they really are. Not so keen sighted as the antelope, they yet possess remarkable powers of vision, and are especially quick to notice any moving object, which makes stalking almost an impossibility.

So far as my observations extended, there is no well marked season of rut or of the birth of the young. Though most numerous in the early spring, it would seem that, as there is no severe cold weather, nature has not provided the usual protection for the young, and as in the tropics there is practically no season with reference to temperature and vegetation, there is none well defined for breeding.

In hunting them I discovered no new distinctive phases of deer character. They feed at night, and in the early evening wade into the small lakes (*lagunas*) in search of succulent lilies and delicate aquatic plants. Their favorite food is the creeping plants known as *lechosa* and *bejucos,* of which they are very fond and eat greedily. Shortly after daybreak they retire to the thickets or jungles, and secure from intrusion by man, take their siesta in almost impenetrable haunts. From these situations it is difficult to drive them, even with well trained hounds.

In the wilder and more unsettled sections they can be found in the savanas until the heat of the day, hiding in the guinea and pajal grasses, where they are less harassed by flies and insects. They are loth to leave such a sheltered retreat, and a horseman, unaccompanied by dogs, may ride to within a few feet of them before they break cover.

A greater variety of dogs is used in deer hunting in Cuba than in any half dozen other deer countries of which I know. In point of numbers the cur, or native dog, predominates. Novelties to me were the slow tracking Spanish pointer, trained to point quite as if upon birds, and the Biscaya, a heavy, low-set Spanish hound, with remarkably large dew claws, and with about as much speed as an average ice wagon. English beagles, French hounds and griffons were much in evidence, especially in the eastern part of the island. Of late years only, the American foxhound has begun to find favor in the eyes of the local hunters. Formerly he was considered too fast. In every section of the island, from Havana to Santiago, I found hounds of my own breeding, and was pleased to note that expert hunters considered them the best.

Ordinarily, for deer, I prefer a slow, painstaking, trailing and driving hound; but in these

almost impenetrable jungles a fast trailing, hard-driving hound is far better, as the deer soon learn many of the tricks of the fox in throwing off the hounds, and avoid the small clearings, called *sabanetones,* where at their stands the cigarette-smoking hunters patiently await their appearance. Pottering along on a cold trail, the slow hound will sometimes be occupied an hour in forcing the quarry out of a ten-acre thicket, where he finds it difficult to drive them from the innumerable game paths through the jungles, where they leave only the foot scent, while a fast hound allows them little choice of route, forcing them through the thickets, where the scent, adhering to the bushes, vines and tall grasses, enables the fast hounds to own the line and trail them with heads breast high at full speed, and they soon break for clearings en route to the rivers or *lagunas.* It is well known that the harder a deer is run and the warmer he becomes the more body scent he gives off. The native hunters, however, seem to prefer the slow hound, and are contented to wait as lonely sentries on a stand while the slow hounds potter along on a cold trail.

A hound three-fourths foxhound and one-fourth bloodhound—though subject to black tongue, a fatal disease in the tropics—makes an ideal dog

for deer hunting in tropical countries. What the bloodhound cross loses in speed it gains in nose, and it has a certain natural sagacity which teaches it not to open on a cold trail—something much to be desired in jungle hunting.

The shotgun is the favorite weapon used in this sport. Many Cubans and Spaniards prefer the 16-gauge for deer as for birds, though the rifle and the 10 and 12 gauge shotgun are coming into vogue as American influence increases.

The poorer classes use single-barrel muzzleloading shotguns, costing from three to five dollars, which they load with a handful of powder and a half pound of leaden slugs.

The better classes use modern shotguns or large caliber repeating rifles, according to local conditions. I am not sure that they are not better adapted to the purpose than our small caliber rifles —with their great velocity and penetration—possessing as they do greater striking energy and tremendous shocking power. The small bullet of high velocity, unless it passes through a bone, allows a deer to escape for the time being, yet with a mortal wound, from which it dies later in the jungle. The flatness of trajectory and great momentum of the small caliber high power rifles make them exceedingly dangerous to other hunters.

In shooting at a running deer every second is precious, and I have always preferred a metal front sight, kept bright, with a plain bar rear sight. The center of sight is quickly and unmistakably located.

The hunting is usually on horseback. The party, generally consisting of from four to six, ride to a favorite jungle, which may be several hundred acres in extent, and separated from the sugar cane fields by small clearings. The hunters station themselves on different sides, sitting on their horses, so that they may move quickly up and down the clearings, which frequently are not wider than broad streets or roadways. If the hounds are good persistent hunters, they are cast into the thicket alone; if they need urging and assistance, a hunter —*picador*—is sent in with them.

Some of these thickets are almost impenetrable because of the tangled undergrowth, and I often had to give up attempts to penetrate them. Not so with the native *picador*. Each is armed with the ever-present and wonderful machete, and with the peculiar drawing wrist motion that no foreigner ever acquires, he can cut his way through places seemingly impassable. The size of the limb or tree they can cut with a single stroke is almost beyond belief. The machete is indispensable. With it they cut and blaze trails, dress and skin game,

make huts, chop firewood, or slice venison and bacon. They use it as a weapon of offense and defense. I saw one woman, both of whose arms had been cut off close to the shoulder, each with a single stroke of this terrible weapon.

Unless, as seldom happens, the chaparral is drawn blank, the jungle soon resounds with the cheering music of the deep baying hounds, and for a moment the chattering of the many birds that hitherto have kept up an incessant chorus, ceases, to be renewed with increased vigor when the driving commences in earnest. A driven deer is frequently located by the birds protesting in no uncertain terms against his advance through the thickets.

If, instead of a jump, the eager hounds find a cold trail, they work it out slowly, occasionally opening on it—the tongue of each individual hound—as familiar to the ear as the voice of a friend—floating out to the now thoroughly aroused hunters, each of whom seeks a point of vantage. Although one is supposed to stick to the stand selected, still when the deer is up and the hounds are driving hard through the bewildering maze of game paths, the tough little native ponies have plenty of work cut out for them through the efforts made by each rider to be at the place the deer will

leave the timber. Such moving about often turns back the deer, which prefers to take its chances with the hounds rather than with the hunters. However, after being turned back several times, a moment comes when the deer bounds into the opening. If it is a young one, and has not been chased before, it is likely to pause for a few seconds at the edge of the clearing, with ears thrown forward, tail erect, motionless as a statue, not a muscle quivering, while it listens to the distant music of the hounds. It is but an instant, however, before sinewy springs send it bounding away across the clearing like an animated ball, to disappear into the adjoining jungle. As it vanishes from sight, its twinkling tail waves defiance to the hunter who failed to take advantage of the momentary pause and lost the chance to bring the deer to earth. Few hunters, shooting from horseback, have the skill required to hit a running quarry. Thoroughly warmed, and really alarmed, the deer now makes for water, the hounds, giving tongue at every stride, hard upon his trail. Unable to throw them off, he soon begins to run from patch to patch of cane and through the clearings. The hunters have scattered and follow as best they can, guided by the loud mouthing of the hounds and an occasional glimpse of the deer, which, circling around, grad-

ually returns to the place from which he was jumped. Usually he is shot at several times before a well-directed charge from some fortune-favored hunter brings him to earth. The horn is then blown three blasts and the hunters come to "the kill."

The deer is bled, the viscera removed, and the panting hounds well blooded, after which they are examined for wounds, cuts and tears, which are frequent, and if necessary must be sewn up. The deer is then either placed in a pannier or on the pack of an extra horse, and if satisfied with the bag the party returns to the plantation. If the hacienda of a friend or brother hunter is passed, a stop is always made for breakfast or luncheon, and strangers or foreigners in the party are made welcome and shown every courtesy.

Each season many of the best hounds—especially the imported ones—are killed by the alligators which infest the streams. Often they allow a deer to pass by, waiting for the dogs, for which they seem to have a peculiar fondness. A brief struggle and a trail of blood alone tells of the untimely end of many a good hound. Because of this danger, the best shots are frequently stationed near the water to kill the deer and alligator, as well as to save the dogs.

Deer Hunting in Cuba

A successful deer hunter in Cuba must be endowed with some spirit of adventure, possessed of a high degree of acuteness of observation and hearing, and must be a good shot and a first-class horseman. Successful hunters are born, not made.

In our own country there is more or less excitement "on stand" when a deer is heard coming, and with the novice this sometimes develops into buck fever. But this is insipid excitement when compared to the high nerve tension and keen thrill experienced in still-hunting and stalking. This sensation is denied the average member of a hunt club, who with hired guide and hounds is guaranteed a shot, stationed on one of a dozen stands in the runways, each stand holding a hunter, no two of them equipped with the same kind of gun, ammunition or hunting costume. The guides do the hunting, and when the deer appears, a fusillade ensues. The guide finally brings down the game at long range, and each of the hunters is positive it was "his shot," and for the rest of his life tells how some one of his fellows deprived him of the "largest buck ever killed in that section."

Hunters of this type will do well to give Cuba a wide berth, and should do their hunting in a cozy corner of the club.

Roger D. Williams.

ELEPHANT SEALS OF GUADALUPE ISLAND

The elephant seal is the largest of all fin-footed mammals, a full-grown male exceeding twenty-two feet in length, with a greater girth than the largest walrus. Its name is due partly to its size and partly to the remarkable proboscis developed by the full-grown male. There are two divisions of the family, one living amid the chilly waters of antarctic islands, the other along the warm shores of the Californias. The stock is of ancient lineage, and the separation took place so long ago that marked differences have developed. In remote South America the young are born in November, when summer is beginning. North of the equator they first see the light in March. Climate, season, and food slowly wrought changes until the very skull became altered, and the Northern offshoot acquired the characteristics of a separate species.

Sixty years ago the Northern elephant seal had a range of a thousand miles along the coasts of Mexico and California; to-day it lives on a single

ADULT MALE ELEPHANT SEAL, GUADALUPE ISLAND.
When the head is turned back, the heavy proboscis overhangs to the rear.

SOUTH END OF ELEPHANT SEAL ROOKERY, GUADALUPE ISLAND.
Adult male in foreground; females and young in background.

island. Then its numbers swarmed on coast and islands alike; now it survives only on an isolated beach. Unfortunately for its increase, the elephant seal yields a valuable oil, and about the time when California was being settled it was killed in such numbers that in the year 1869 it was reported by its only biographer as "nearly, if not quite, extinct."

Naturalists heard nothing of it for many years, and believed it lost to science as well as to commerce, a loss that they felt all the more deeply as little was known of its ways and appearance, and with one or two exceptions, museums were without specimens. It had never been photographed, and the few drawings in existence were crude and unsatisfactory. But the race was not quite extinct, and it has lately been my good fortune to discover the only herd now known to exist in the Pacific.

In 1884, while making natural history collections for the National Museum in California, I learned from a seal hunter of the continued existence of this seal in Lower California, and at once communicated the fact to the secretary of the Smithsonian Institution, who asked me by telegraph to charter a schooner for a cruise among the uninhabited shores and islands where it was said to linger. The search lasted three months, and

the result was sixteen skins and skeletons of the rarest of North American mammals. The specimens were not large, and we had little opportunity of observing the habits of the animal.

Our long voyage was not lacking in hard work and hazard. There were the regular watches on deck, which I shared day and night with the small crew; thirsty hunts for wild goats on the mountainous desert islands to replenish our larder; and trips to distant watering places, where the casks had to be filled and laboriously gotten on board. In our search we must have landed a score of times on rocky islets, inhabited by hundreds of sea lions, and about which the sea ran high. Day after day we tugged at the oars, minutely examining leagues of beaches, while the schooner cruised offshore. We landed through all degrees of surf, where the boat was sometimes swamped. One man fell overboard at sea with his rubber hip-boots on, and the boat reached him not a second too soon. We lost an anchor among the rocks, and smashed the cast-iron windlass in the vain effort to save it in a surging sea.

Meanwhile the sealers had resumed their destructive work, and it was a race between us as to whether science or the oil makers would get the last specimen.

Then the elephant seal disappeared from view, and was not seen for eight years, when it again fell to my lot to report its existence. In 1892, I was sent by the Secretary of State in a chartered vessel to Guadalupe, an uninhabited island lying 140 miles off the coast of Lower California, to identify the species of fur seal reported to exist there, the information being desired for the fur seal arbitration then being held in Paris. Quite unexpectedly we found eight more elephant seals, some of which we took for museum purposes.

Specimens of the large male seals, with proboscis fully developed, and information respecting their habits were still lacking, and nineteen more years passed away before I got the splendid opportunity to procure them, which I shall now describe.

In March, 1911, while in charge of the deep-sea investigations of the U. S. S. Albatross, I called at Guadalupe Island with the faint hope that a few elephant seals might have escaped the oil hunters of former years. The hope was more than realized: when I left the island after two days' work, we had the skins of three giant males, a full-grown female, two complete skeletons, and six live yearlings. Besides, my portfolio was filled with photographs, and my journal with notes on the living animals. We left undisturbed behind us a splendid

herd of about 150 elephant seals, and an official announcement has been made that the plan proposed by the writer for its protection, through concerted action by the United States and Mexican authorities, will be carried out. The principal danger which threatens is the fact that its existence has been made known to sealers.

We reached Guadalupe Island March 2, and immediately landed the members of the scientific staff on the east side for a day's collecting, and proceeded at once with the ship to the northwest side in the hope of finding a few survivors of the elephant seal. After a forenoon's search, we located a herd of about one hundred and twenty-five on what was known to sealers as Elephant Beach. I killed one large male and one large female, which we skinned and took to the ship. Returning with larger boats and some nets, six yearlings were captured alive and sent on board. March 4, I killed two more of the large males, the skinning and skeletonizing of which occupied us for several hours. The sea becoming rough, we were compelled to leave the beach in the afternoon, and the embarking of our heavy specimens was difficult and dangerous.

Elephant Beach is located under cliffs a thousand feet high, and is flanked by others which extend

into the sea, thus making the top of the island altogether inaccessible from this point. Its northern end is well marked by heavy rock slides. The beach is accessible from the sea only, and is usually further protected by a heavy surf. It is not more than three or four hundred yards in length by thirty in width, and the greater part of it is sandy, the inner margin being lined with talus from the cliffs.

The seals had little fear of man, and the few animals which left the beach after we landed probably would not have done so had they not been disturbed by sailors walking among them. While the large specimens were being skinned and skeletonized, some of the animals slept undisturbed within thirty feet of where the men were working. I succeeded in obtaining about fifty good photographs, showing the general character of the rookery and the attitudes of the animals. The herd consisted chiefly of large males and immature animals of various sizes. There were probably not more than fifteen adult females present, and only six of these were accompanied by new-born young. The indications were, therefore, that other adult females would arrive later.

The three males which we killed were the largest in sight, and were found to average just sixteen

feet in length, with an average girth of eleven feet. The largest specimen of the Northern elephant seal previously recorded as actually measured was "twenty-two feet long from tip to tip, and yielded 210 gallons of oil." The adult female that we killed was nearly eleven feet long. Some of the females with young pups appeared to be slightly longer, but we could not measure them and would not kill them. There were numerous immature males about the size of the adult female, and many animals of intermediate sizes between these and the new-born pups. Animals of the yearling size were distinctly more numerous than those of other sizes. The new-born pups, being dusky black, were distinguishable in color from the yearlings.

The skin of the adult male is exceedingly heavy, being nearly an inch thick about the forepart of the neck. Our knives dulled so rapidly in skinning them that it was found necessary to have a grindstone sent ashore and to keep two men busy at the task of sharpening. The carcasses were so heavy that it required all the strength of half a dozen men to turn them over, with the aid of a rope and hand-holes cut in the skin. In some places we found the blubber to be about four inches thick.

Unless actually teased by members of our party, the old animals did not attempt to leave the beach,

and many of them, although wide awake, did not raise their heads from the sand until closely approached. When driven from a comfortable resting place, they would soon settle down, and after throwing sand on their backs with their front flippers, would become quiet again. Both old and young have this habit of covering themselves with sand.

Some of the large males, after being driven into the sea, soon returned. While in the water they remained near the surf, disregarding the boats which passed near them, their heads usually held well above water, with the proboscis partly retracted. When making a landing, the large males moved very slowly, with frequent pauses, from time to time raising and spreading the hind flippers to get the benefit of every wave that might help them through the shallows. When finally clear of the water and dependent upon their own efforts in getting their ponderous bulk to a dry place well up the sloping beach, their progress became very slow.

Most of their attitudes are well shown in the accompanying pictures, but it must be confessed that we could not have secured all of our photographs without first getting the animals thoroughly aroused. In some cases I focused my camera on

an elephant seal at a distance of eight or ten feet, and then had a sailor kick the animal violently in the ribs. One of them became thoroughly angered only after a sailor had jumped upon his back. When moving of its own accord, the elephant seal arches the body in a way suggestive of the motion of the inchworm, drawing the hindquarters well forward, with the belly lifted from the ground, and then shifting the forequarters with the front flippers braced outward.

The large males which accompanied the nursing females were frequently engaged in fights with unattached males. There had evidently been considerable fighting, as their necks were more or less raw, and in some cases had festering sores. In comparison, the necks of the younger males were smooth and without tooth-marks. In fighting, the large males crawl slowly and laboriously within striking distance, and then, rearing on the front flippers and drawing the heavy, pendent proboscis into wrinkled folds well up on top of the snout, strike at each other's necks with their large canines. The fighting was accompanied with more or less snorting, but we heard none of the extremely loud bellowing described by writers as characteristic of the antarctic species of elephant seal.

The skin of the under surface of the neck and

forepart of the breast is greatly thickened. It is almost hairless, and years of fighting has given it an exceedingly rough and calloused surface. This shield, as we may call the part of the animal most exposed to attack when fighting, extends from the throat just below the base of the jaws down to the level of the flippers, and rather more than halfway back on each side of the neck and breast. Although ugly wounds are inflicted by the large canines, the heavy skin in no case seems to be broken through. While the animal takes good care of its head and proboscis, the calloused breast-shield is freely exposed to the enemy. The fighting is not of the desperate sort indulged in by the fur seal, and the contestants soon separate. There seems to be no actual seizing and holding of the skin, and after each sharp blow the head is quickly withdrawn and held aloft.

When the head of the male is elevated, the skin at the top of the neck and shoulders is thrown into a series of eight or ten heavy folds, which extend downward and forward. When the animal is at rest, with its head stretched forward on the sand, these folds do not show. The fore flippers are large and thick, and have heavy claws, the posterior three claws being well separated.

The proboscis of the elephant seal is broad and

fleshy to the tip, where the nostrils are placed wide apart, the nasal openings being directed somewhat downward and outward. The length of the proboscis forward from the canines is about equal to the distance between the canine and the eye, and its width is about equal to the space between the eyes. The proboscis is exceedingly thick and heavy. In one of our specimens, and that not the largest, it was about nine inches long. When the animal is crawling, the proboscis is relaxed and pendent; when sleeping, it rests upon the sand in a shapeless mass. When annoyed persistently, the old male slowly raises his head, and retracting the proboscis, opens his mouth wide. He does not bellow loudly, but there is much blowing out of the breath through the nostrils with a gurgling sound, the whole proboscis vibrating heavily with the effort. Sometimes when the head is turned up, the proboscis relaxes until it hangs into the open mouth. The animal may continue to turn its head over backward until the half-relaxed proboscis actually overhangs to the rear. In fighting, it is closely retracted, and is kept out of harm's way, for many of the animals with badly damaged necks had trunks showing no injury whatever.

When the proboscis is fully retracted, it exhibits three bulging transverse folds on top, separated by

deep grooves. There is little indication of the proboscis in the half-grown male. Under excitement both female and young extend the nose into a sharply pointed tip.

Nothing was found in the stomach of the elephant seal that would serve to indicate the nature of its food; in fact, we never found anything but a handful of sand. Our captive elephant seals refused to eat fresh fish during the two days' voyage to San Diego, and took no food for more than a week after their journey overland. In the New York Aquarium they have subsisted entirely on fresh fish cut into moderate-sized pieces, but they have greatly preferred fish that was alive. Live crabs and bits of seaweed placed in the pool always remained untouched. Like the fur seal, they doubtless feed on live squid, but they refused the dead squid we took pains to procure for them.

The yearling elephant seal is somewhat heavier and longer than the nursing pup, but it is proportionately slender, is brownish-gray in color, and has longer whiskers. As I have said, the nursing pup is *black,* and its length is about four feet; it is so remarkably fat as to be virtually unable to move, while the yearling is fairly active. None of the six yearlings brought to the New York Aquarium exceeded five feet in length, their weights varying

from 167 pounds to 301 pounds, the males being heavier than the females.

The yearling frequently emits a sound not unlike the scream of the peacock. On first landing, we were unable to account for these singular noises, and ascribed them to sea-gulls, but soon discovered their true source. This call, or scream, is most frequently heard when the yearling is disturbed or trampled on by larger animals.

The capture of the six live yearlings was a simple matter. Some heavy pieces of netting were thrown over the animals, into which they were tightly rolled, so that the sailors could handle them without fear that they would bite or climb out of the boats. On board ship they were for a time given the freedom of the decks, but later were kept in a pen. They showed no inclination to bite either while on the ship or when they were received at the New York Aquarium.

The photographs of the young animals while at the Aquarium show some attitudes which were not observed on the beach at Guadalupe Island. While the animal is plump and rounded when at rest on the floor of the empty seal pool, it may look slim when stretching up its head to the hand of a visitor. The neck becomes remarkably drawn out, and it may reach upward until the tips of the flippers are

ELEPHANT SEALS NEARLY TWO YEARS OLD, IN THE NEW YORK AQUARIUM.

lifted from the flooring. The animals often go to sleep under water, stretched out on the floor of the pool.

When the Albatross left Guadalupe on March 4, 1911, there were not fewer than one hundred and twenty-five elephant seals at the rookery. As the number of adult females present was considerably less than the number of adult males, and less than half the number of yearlings, there was reason to believe that the female portion of the herd would be better represented before the end of the month. The present size of the herd—summer of 1912—may therefore be estimated at one hundred and fifty animals of all classes.

Eleven days later, when the Albatross reached San Cristobal Bay, on the peninsula, I examined the site of the old rookery at that locality without finding any indication that it had been occupied. We found no signs of elephant seals at either San Benito or Cedros Islands, where the ship called on the voyage southward. I examined the shores of San Benito very thoroughly. Both of these islands were formerly breeding resorts of the species.

We may now safely assume that the Northern elephant seal exists only on Guadalupe Island, and that we have ascertained about how many of its race remain. We have learned from examination

of the skulls of mature animals that the species is unquestionably distinct from its Southern relative. The character of the proboscis of the adult male, the appearance of the new-born young, and other facts in the natural history of the animal, have been ascertained. The completion of a group of elephant seals in the American Museum of Natural History in New York, mounted according to photographs and actual measurements, will soon give us a graphic view of this large and remarkable North American animal that came so near to being lost to science.

Charles Haskins Townsend.

GAME PRESERVATION COMMITTEE

At the annual meeting of the Club, held in January, 1910, Mr. J. Walter Wood submitted a resolution, which read:

Resolved, That the President of the Club appoint a Committee of six to consider what steps should be taken to broaden the activities and develop the usefulness of the Boone and Crockett Club, more especially with reference to its taking a still more active part in the protection of game; the said committee to report to the Executive Committee from time to time, and to make a full report with recommendations at the next annual meeting.

The resolution was adopted, and a committee appointed, consisting of the following members: J. Walter Wood, Chairman, George Bird Grinnell, Chas. H. Townsend, Chas. Sheldon, W. Redmond Cross, and George Shiras, 3d.

This committee held frequent meetings, and at the annual meeting, January, 1911, made a report with recommendations. It advised that to the standing committees of the club there be added a

Committee on Game Preservation, to consist of six members, the Chairman to be annually appointed by the Executive Committee for the term of one year, the other five members to be appointed by the Chairman, subject to the advice and consent of the President of the Club; and that the work of this committee should deal largely with the question of game refuges.

The report treated of game and some fur-bearing animals, and suggested certain legislation. The report was adopted.

At a meeting held February 3, 1911, the Executive Committee appointed a standing Committee on Game Preservation. This consisted of George Bird Grinnell, Chairman; Chas. H. Townsend, Secretary; J. Walter Wood, Chas. Sheldon, E. Hubert Litchfield, W. Redmond Cross, and Amos R. E. Pinchot.

The Executive Committee on April 12 passed the following resolution:

> Resolved, That full power be and hereby is given to the Game Preservation Committee to act for the Club in all matters pertaining to the preservation of wild life on this continent, and to take such steps in regard to these matters as in the judgment of the said committee shall be most effective.

Later in the year, the Game Preservation Com-

mittee recommended, and the Executive Committee passed, the following resolution:

> Resolved, That the President be, and he hereby is, authorized and empowered to appoint a committee with full power to raise an endowment fund, and also a special fund from or through the members of the Club; such special fund and interest from the endowment fund to be expended by the Game Preservation Committee in the preservation of the wild life of America, and under such restrictions as the Executive Committee may from time to time impose.

This resolution was passed, and a Finance Committee was appointed, of which Dr. Lewis Rutherfurd Morris was Chairman. Some months later Dr. Morris resigned, and Henry G. Gray, the present Secretary of the Club, was appointed in his place. Through the energy of the Finance Committee funds have been raised to render effective the work of the Game Preservation Committee.

The Game Preservation Committee's report for the year 1911 recommended the laying out of a comprehensive plan of national game refuges, and with this in view, it worked with other game protective associations, and especially with the Biological Survey, from which it received a memorandum on the preservation of North American game,

which is printed with its report. It also announced a declaration of the policy already carried out by the Club, and to be continued. This is that the club should "concentrate its efforts upon projects directly and indirectly concerned with the preservation of big game, while on questions concerning birds and fish the name and influence of the Club" should be used to further worthy movements, but that steps to inaugurate such movements should be left to others. The report discussed some pending Federal legislation and the game situation, including in this last some fur-bearing and almost extinct mammals.

At the very close of the year, after much correspondence with the Secretary of the Interior and Colonel—then Major—Brett, about twenty antelope were trapped in the Yellowstone National Park, of which half were sent to the National Bison Range in Montana, and half to the Wichita Game Preserve. Through lack of experience on the part of those who crated the animals, the crates were made too roomy, with the unfortunate result that a number of the antelope injured themselves in transit and died. Nevertheless six or seven reached the Montana range in fair condition, and eight the Wichita reserve. In May, 1913, there were five antelope living and in good condition on

the Montana Bison Range, and on the Wichita reserve, two—a male and a female—are alive and seemingly doing well.

Colonel Brett was kind enough to write out for the benefit of the Club a detailed report of the method by which these antelope were captured.

The Game Preservation Committee appointed for the year 1912 consisted of Chas. Sheldon, Chairman; Chas. H. Townsend, Secretary; J. Walter Wood, W. Redmond Cross, Edward Hubert Litchfield, E. W. Nelson, Alexander Lambert, M.D., with Geo. Bird Grinnell and Dr. Lewis Rutherfurd Morris as advisory members. The Committee's report for the year was submitted at the annual meeting, January, 1913, and accepted by the Club. As usual, it dealt with the work of the year, with some pending legislation dealing with migratory birds, and the fur seal, and with the game situation. While the reports as to the condition of the antelope are discouraging—it being concluded that the species, although everywhere protected in the United States, is everywhere diminishing—the news with relation to the wild sheep is more cheering. Many more mountain sheep exist in the United States than is generally known, though a variety of conditions tend constantly to reduce their numbers. Two or three

new forms of sheep have recently been described.

The most important part of this report is found in the general remarks on game protection, which suggest certain novel ideas, which it seems desirable to print in full:

"A great and increasing interest is being shown throughout the country in game protection. This is evidenced by the considerable number of measures on this subject now before Congress, and in the more enlightened character of State legislation in matters pertaining to game.

"In view of the interest and co-operation of the Forest Service in connection with the protection of game in the National forests, it would be extremely helpful in this direction if the forest rangers could be made ex-officio deputy State game wardens in all of the States. Certain States already have laws to this effect, and the Boone and Crockett Club might help in bringing about this legislation in other States. A great barrier to the proper protection of game in the States is frequently found in the difficulty of impartial enforcement of the law. This might be helped forward considerably by the forest rangers. Their influence at the same time would be strengthened if they were officially a part of the State game protection service.

"The game protection movement in this country

is in the nature of a great reform movement. As such it contains extreme reformers and reactionary reformers. The extremists at present are tending toward the discouragement even of reasonable sport, and their expressed views seem to imply that all effective game protection is contained in the one word—Prohibition.

"The Game Preservation Committee does not sympathize with either extreme. We believe that reasonable sport is admissible. We believe that prohibition is only one of the many elements in the problems. We would completely prohibit where necessary, or approve the shooting of animals and game birds where it can be done without detriment to the breeding reserve to maintain the stock unimpaired in numbers. We believe that to discourage the sportsman will destroy the most effective force now working for game protection.

"But the sportsman must conduct his sport like a gentleman; he should be the first to refrain from shooting animals in places where they are so diminished in numbers that the killing of them will tend toward their extermination, or even endanger their increase; he should only secure trophies which he himself kills, and should never buy them except for purposes of scientific study in museums.

"A field hitherto largely neglected now demands

the attention of sportsmen. They should make the results of sport available for the study of natural history. Hitherto sportsmen have largely retained and isolated their trophies instead of making them available to our museums for study. As a result, the museums to-day lack sufficient specimens of some of our important large game animals for comparative study. They are totally lacking in skulls of the eastern elk, the plains grizzly, and the sheep of the Black Hills, all of which are now extinct. There is in our museums a scarcity of specimens of certain other large animals, many of which are approaching extinction without being properly represented by specimens. Indeed, study series of some really common game animals are still lacking. Sportsmen have begun to interest themselves in allying their sport with natural history, and we believe that the time has come for every sportsman to associate himself with some museum with a view to contributing his quota to the knowledge of our native fauna.

"The Game Committee believes that most of the measures proposed for enactment in laws are not of a character to afford a permanent solution for the preservation of American game. They lack the needed elements of variability and quick adaptability to diverse and constantly changing conditions.

Advantages of proposed legislation against the use of improved firearms will be offset by increasing population, resulting in a proportionate increase of hunters. This proposed legislation would also arouse active opposition by powerful interests—a most undesirable thing because the first step toward effective laws and the enforcing of them is harmony among all the interests. Long close seasons are often necessary, sometimes unnecessary, often beneficial, sometimes harmful. The resulting advantages are offset, as experience demonstrates, by the killing of the increased supply of game so rapidly on the opening of the season as to restore the old conditions. Appeals to gunners for moderation in killing have only slight effects, for a proportion of gunners are too thoughtless to heed them.

"Whatever kinds of firearms are used, natural enemies, increasing population, the gradual occupation by settlers of the game country, motor cars, improved power boats, the extension of trolleys, of railroads, of good roads; in fact, all advancing material interests, are inevitable improvements which tend to exterminate our game. What, then, can be done to offset these elements and preserve it?

"From the present outlook it seems that the antelope should never again be molested by the sportsman. At present in all places in the United States

mountain sheep should not be hunted. In the future, in some localities, they may increase to the point where a surplus may be killed. In the United States grizzly bears, except those which kill cattle, should not, for the present, be killed. In localities deer should be more closely protected. The killing of surplus elk outside the Yellowstone Park is a field for sport. The same is true in a number of places of deer, moose, caribou and mountain goats.

"The Game Committee believes that the common practice of advocating and passing rigid laws, only changeable by legislative action, is wholly inadequate to meet the situation. It can never put the matter on the right basis of quick adaptation to changing and varied conditions. The question calls for serious study and a new point of view.

"We therefore urge continued efforts in behalf of the valuable measures already proposed, namely, better means of enforcing game laws, more effective means for the extermination of natural enemies of all kinds of game, and a more effective agitation of this aspect of the question, laws in all States for non-sale of game, game refuges, and game propagation.

"We also urge careful consideration of the following subjects: Laws including permissive close seasons, variable bag limits and other necessary

restrictions. But the laws should accomplish these ends by creating commissions for the preservation of game, and investing them with elastic powers and full responsibilities. These commissions should have full authority to make or unmake, lengthen or shorten close seasons; to increase or decrease bag limits; to set aside and entirely prohibit shooting on areas of land or water necessary for feeding grounds of wild fowl, shore birds, game birds or animals; to establish rest days on which neither game nor water fowl can be disturbed; in fact, full and complete powers to establish such constitutional regulations or restrictions at any time or in any section independently, as varying and changing conditions may require adequately to conserve the game.

"If this suggestion seems radical, it is to be noted that it is nothing more than the application within the respective States of the theory of game preservation which is contained in the bill for Federal control of migratory birds, and in part of the present Alaska game law.

"Whenever possible, the Game Committee seeks to restore big game animals to areas where they can increase and afford sport. Since some of our animals are on the verge of extinction, they can never again serve that purpose, but must if possible

be permanently preserved. We desire to hand down to future generations opportunities for sport as well as the animals that we have hunted, but the sport must be consistent with the effective preservation of the animals.

"The Game Committee believes that any extreme prohibitive policy will in the end react and finally work against the preservation of game."

Brief History
of the
Boone and Crockett Club

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Boone and Crockett Club

In December, 1887, Hon. Theodore Roosevelt, then member of the New York Assembly, at a dinner at his residence in New York City, proposed the formation of a club of American hunting riflemen, to be called the Boone and Crockett Club. The suggestion was warmly welcomed by those present, among whom were E. P. Rogers, Archibald Rogers, J. Coleman Drayton, Thomas Paton, Col. J. E. Jones, Elliott Roosevelt, J. West Roosevelt, Rutherford Stuyvesant and George Bird Grinnell. A constitution was formulated, and in January, 1888, the Club was organized with the following officers and members:

President, Theodore Roosevelt; Secretary, Archibald Rogers. Members: Albert Bierstadt, Heber R. Bishop, Benjamin F. Bristow, J. Cole-

man Drayton, D. G. Elliott, George Bird Grinnell, Arnold Hague, James E. Jones, Clarence King, Wm. H. Merrill, Jr., Thomas Paton, John J. Pierrepont, W. Hallett Phillips, E. P. Rogers, Elliott Roosevelt, J. E. Roosevelt, J. W. Roosevelt, Rutherford Stuyvesant, W. A. Wadsworth, Bronson Rumsey, Lawrence Rumsey and W. D. Pickett.

As time went on, these men added to their numbers others interested in the same objects, so that now, for many years, the Boone and Crockett Club has had one hundred regular members—its limit—and from twenty-five to forty associate members. Among the latter are a number of men who have performed notable services in behalf of the objects to which the Club is devoted.

These objects were announced as being:

(1) To promote manly sport with the rifle. (2) To promote travel and exploration in the wild and unknown, or but partially known, portions of the country. (3) To work for the preservation of the large game of this country, and so far as possible to further legislation for that purpose, and to assist in enforcing the existing laws. (4) To promote inquiry into and to record observations on the habits and natural history of the various wild animals. (5) To bring about among

the members interchange of opinion and ideas on hunting, travel and exploration; on the various kinds of hunting rifles; on the haunts of game animals, etc.

Such were the purposes of the Club when it was formed, and for a number of years each received its fair share of attention. Gradually, however, the settlement of the country and the sweep of population to the westward made it more and more difficult to carry out the two first-named, while the same causes magnified the importance of the third and fourth of these objects. Great changes have taken place in portions of the United States, where at the date of the formation of the Club wild game was found in abundance, and over much of the western country the advancing tide of settlement has swept out of existence all the game. The Boone and Crockett Club, organized as an association of hunting riflemen, to promote manly sport with the rifle, and to investigate the wild and unknown portions of the country, can no longer do either of these things within the limits of the United States. Little hunting trips may be made, and occasionally a head or two of game killed, but the old wild frontier of the limitless prairie and of the steep and rugged unknown mountains is gone forever.

In the years that have elapsed since its organization, the Boone and Crockett Club has accomplished a number of things which entitle it to the lasting gratitude of the American people. Through the efforts of its members have been carried on a number of successful battles for good things, whose importance the Club saw far in advance of the public opinion of the time, and which in recent years has come to be generally appreciated, although not as yet wholly understood.

Among the achievements which may fairly be claimed for the club are these:

(1) The carrying on to a successful end the fight for the preservation of the Yellowstone National Park. This fight commenced in 1882, long before the Boone and Crockett Club was organized, yet the men who began the fight and for many years carried it on alone, were among the first members of the Boone and Crockett Club, and the Club at once took up and carried through to its end the work that they had started. Among these men were Arnold Hague, Wm. Hallett Phillips, Archibald Rogers, George G. Vest and George Bird Grinnell.

(2) The forest reserve system now in successful operation in the United States and covering lands aggregating one hundred millions of acres,

is due in large measure to the efforts of the Boone and Crockett Club. The late Wm. Hallett Phillips deserves much credit for aiding in the passage of the Act of March 3, 1891, a section of which authorized the President, in his discretion, to set aside public lands for forest reserves, while Gen. John W. Noble, a member of the Club, then Secretary of the Interior, established the first reserves under proclamation of President Harrison.

(3) In 1894 the Boone and Crockett Club founded and took control of the New York Zoological Society. Credit for this belongs chiefly to Madison Grant, C. Grant La Farge and some others.

(4) In the year 1897 the club succeeded in having a bill passed by the New York Legislature which forbade the hunting of deer with dogs in the Adirondacks and the killing of deer in the water. This ended a crusade which had been going on for fifteen years or more.

(5) In 1902 the Club secured the passage of a bill to protect Alaska game—the first law enacted for this purpose. This bill was drafted by members of the Club, Madison Grant and Hon. John F. Lacey; and the latter, with the help of such public interest as was aroused by the Club, succeeded in pushing the bill through Congress.

(6) The idea of game refuges—sanctuaries within which neither birds nor mammals should be pursued or injured—originated with the Club, and was first brought up at a meeting of the Executive Committee, held at the residence of Dr. Lewis Rutherford Morris. While this idea was more quickly taken up by the general public than most game protective suggestions, and while it has been adopted by a number of States, it has not yet been practicable to secure from Congress legislation looking to the establishment of such reservations on Federal lands, except in the case of the National parks, two buffalo reservations and some bird islands. On the other hand, certain States—as Massachusetts, Connecticut, Minnesota and some others—have been quick to grasp the suggestion and have established such refuges. One of those in Massachusetts may perhaps save from extinction the heath hen, the eastern form of the pinnated grouse, which but a few years since promised soon to be numbered with America's extinct birds.

Suggestions pointing to the establishment of game refuges had been made earlier, but not in such definite and concrete shape as to be comprehended by the public. In 1876, in a periodical known as the *Penn Monthly,* Dr. J. A. Allen, a

member of the club, made what is perhaps the first hint of the game refuge idea in the United States, when he suggested that, on the Western plains, tracts might be set aside within which it should be unlawful to pursue or injure the buffalo.

(7) The Boone and Crockett Club originated and caused to be introduced in Congress and to receive favorable action by both Houses, the bill establishing the Glacier National Park. The setting aside of this territory, extraordinary for natural beauty, as well as for its availability for a fish and game preserve, is a great achievement. The region includes an area of about fourteen hundred square miles of rough mountains, many of which are permanently snow-capped and carry glaciers near their summits. The deep lakes which lie in the valleys among these mountains are full of fish, and during the season of migration are dark with wildfowl. Moose, elk, mountain sheep, grizzly and black bears, and white-tailed and mule deer have been found in this region up to within a few years, and in ancient times it was a favorite feeding ground for the mountain bison.

(8) Great parks and immense reservations have recently been set aside in Canada, and a number of these parks have been stocked with native game. The largest herd of buffalo in existence was

purchased from M. Pablo in Montana and transported to Canada to be set free in a park near Edmonton. All this recent work has been done at the instance of a member of the Club, the Hon. Frank Oliver, Minister of the Interior for the Dominion of Canada.

I.

The Yellowstone National Park.

In the year 1869 a hunting party from Helena, Montana Territory, stumbled into the region of hot springs and geysers, now the Yellowstone Park. The stories which they brought back were scarcely credited, and in 1870 the Washburn party set out for the locality and at length returned with authentic accounts of many of its wonders. These were thoroughly exploited with pen and voice by N. P. Langford. In the summer of 1871 parties under Capt. J. W. Barlow, U. S. Engineers, and Dr. F. V. Hayden, U. S. Geological Survey, made explorations of the region. Mr. Langford's writings and lectures had already aroused much public interest, and Congress was ready to yield to the influence of Dr. Hayden and to pass (March 1, 1872) the Organic Act by which this area was set

aside and designated "as a public park or pleasure ground for the benefit and enjoyment of the people." The Park was to be under the exclusive control of the Secretary of the Interior, who was authorized to make regulations for the preservation from injury of all timber, mineral deposits, natural curiosities or wonders within the Park. This was essentially the language of the statute, but no methods were indicated by which the Secretary of the Interior should carry out the law.

At the time Dr. Hayden drew the Park bill, the country had not been surveyed, and no one knew just where the territorial lines were to run, or, indeed, where the Park lay. Dr. Hayden chose for his initial points the natural features of the landscape, and made his lines meridians and parallels of latitude. His selections were marvelously fortunate. As Col. George S. Anderson has said, "They seemed almost a work of inspiration. The north line takes in the large slopes on the north of Mt. Everts and the valley of the East Fork of the Yellowstone, where the elk, deer, antelope and mountain sheep wander by thousands; it leaves outside every foot of land adapted to agriculture; also—and this is more important than all—it passes over the rugged and inaccessible summit of the snowy range, where the hardiest vandal dare

not put his shack." As with the lines on the north, so with those on the east, on the south and the west; they are protected by mountain heights and they exclude all land of value for agricultural purposes, or even for grazing.

The first Superintendent of the Park was N. P. Langford, appointed May 10, 1872, to serve without salary. He never drew any salary, never lived in the Park, and protected it only by reports and recommendations. No one could have been more enthusiastic than he, nor more earnest in his wish to see the Park protected, but the reservation was a new thing, and neither he nor anyone else knew what it needed, nor was the public well enough acquainted with it to feel any special interest in it.

In the spring of 1876, P. W. Norris was appointed to succeed Mr. Langford. Something more than a year later an appropriation was had for the Park, and a small force of employees was engaged, some of whom did good work in trying to protect the forests from fires. Norris was a destroyer of natural wonders, collecting great quantities of beautiful specimens, which he shipped out of the Park. He professed to desire the protection of game, but not the abolition of hunting. Norris was followed by P. H. Conger, in 1882, who made the usual recommendations that various things be

protected. In August, 1884, he was succeeded by R. E. Carpenter, who was removed in May, 1885. David W. Wear was the next and last civilian Superintendent.

Meantime, in the year 1882, soon after the completion to the Park of the Northern Pacific Railroad, the region and its wonders became accessible to the public. Among those who visited it were a number of men controlling some capital and more or less familiar with large affairs. They saw the possibilities of the Park as a pleasure resort, and at once set to work to gain such control of it as they could, and to secure a monopoly of anything that might fall in their way. They succeeded in securing from the Assistant Secretary of the Interior a provisional lease, said to have been for ten plots of six hundred and forty acres, each at a different point of interest. These plots were to be so located as to cover the various natural wonders of the Park, where this was practicable. The syndicate, as it was called—the Yellowstone Park Improvement Company—started a saw-mill and began to cut and saw timber in the Park for the construction of their various hotels and other buildings. As laborers in large numbers were to be employed through the winter, the company tried to give out a contract for twenty thousand

pounds of wild meat at five cents a pound, for the boarding houses for their laborers and mechanics.

In the year 1883, the company put up tents for the use of guests, and later put up light frame buildings. About this time Gen. Sheridan came through from the south with President Arthur. It was this same year that Mr. Arnold Hague came into the Park to take charge of the Geological Survey work there.

The effort to secure leases which in practice would give the Yellowstone Park Improvement Company a monopoly of the Park, the high-handed way in which they seized and used the timber, and their efforts to give out a contract for wild meat, aroused a storm of indignation among the people, who best knew what such acts must mean for the public. In the autumn of 1882 the *Forest and Stream* attacked the proposed monopoly and began a fight which was kept up for a dozen years. Senator Geo. G. Vest sprang to the defense of the Park in Congress, and Messrs. Hague, Phillips and Rogers rendered invaluable aid. A campaign of education was carried on which had a great effect on the country, and thousands of petitions, signed by tens of thousands of people interested in natural things, came into Congress and strengthened the hands of Senator Vest.

The work of protecting the Park was difficult, for there was no law governing it. As already said, the organic law authorized the Secretary of the Interior to make regulations for its government and protection, but prescribed no methods for the enforcement of such regulations as he might lay down. The regulations were practically a dead letter. The people cut down the forests, killed the game or chopped out wagon loads of the beautiful geyser formations, which they hauled away for a few miles and then dumped on the prairie. Violators of the regulations could not be punished. If this was true of the casual citizen, it was much more so of a corporation with a large force of men, which in a high-handed way was seizing and converting to its own use timber, game and other valuable things within the Park.

The dangers which threatened were very real, and continued for a dozen years. About 1883 efforts began to be made to secure from Congress legislation which should afford protection to life and property within the reservation, and should prevent the destruction of the forests, natural wonders and game within its borders. In season and out of season, Senator Geo. G. Vest, later a member of the club, urged this matter in the United States Senate, and was ably supported by

many other members. From 1883 to the end of the year 1890 bills to remedy these dangerous conditions passed the Senate at four sessions of Congress—twice by a unanimous vote—but there was a strong effort on the part of a lobby in the House to use the National Park for private purposes, and this lobby always succeeded in having attached to the Senate bill a rider granting a right of way to a railroad through the Park. Members of the Boone and Crockett Club fought this amendment from the beginning. They felt that a railroad in the Park would be a grave danger to the National pleasure ground, and if one railway was permitted to run its lines there, the same privilege might not be denied to others, and before long the reservation would be gridironed by tracks.

As we all know, the efforts of the Yellowstone Park Improvement Company to secure a monopoly of the Park, and of the lobby to secure the right of way for a railroad, were eventually blocked, but much energy and hard work and a great amount of ink was expended before this was accomplished.

By the Act of March 3, 1883, the Secretary of War was authorized—on request from the Secretary of the Interior—to detail a force of troops for duty in the Park, the commander of the troops to be the acting Superintendent. The first officer

detailed under the new appointment was Captain Moses Harris, First Cavalry, a member of the Club, who took charge August 20, 1886, and from this time forth things in the Park began to wear a different aspect. Captain Harris had a troop of cavalry, which he used with energy and discretion, and his efficiency was evidenced by the amount of confiscated property which he accumulated. He made splendid efforts to prevent fires, to protect game and to put an end to the defacement of geysers. He early called attention to the immense herds of elk which occupied the road between Gardiner and Cooke City, and in his reports pointed out the difficulty of protecting this game from the public which traveled to and from the mining settlement of Cooke City. Captain Harris remained in the Park for nearly three years, and left it, having initiated and put in force most of the protective measures that have since been used.

In 1889 an additional troop of cavalry was detailed for duty during the summer, and stationed in the Lower Geyser Basin. Capt. F. N. Boutelle became the Superintendent. He was an ardent sportsman and game protector, and especially interested in the stocking of barren waters of the Park with game fish. This he caused to be done.

In February, 1891, Captain Geo. S. Anderson, a member of the Club, came to the Park and relieved Captain Boutelle. Captain Anderson, while wholly new to the work, was a most able officer, and in Ed. Wilson, one of the scouts in the Park, he found a single, able assistant. This man was devoted to his work and succeeded in arresting a number of violators of the rules; but in the summer of 1891 he disappeared, and his place was taken by Felix Burgess.

Captain Anderson's treatment of the Park was most judicious. Where another officer might have roughly expelled a man from the Park for writing his name or scratching his initials on the beautiful geyser formation, Captain Anderson had the man brought back to the place, and supplied with soap and scrubbing brush or some tool, and obliged him to erase the writing. His ingenious punishments greatly impressed the visiting public, and a wholesome respect for law began to be felt.

At this time the Park held a considerable herd of wild buffalo. The heads and hides of buffalo had now become so scarce that they were very valuable, and in the minds of taxidermists and hunters seemed beyond price. For some time the killing of buffalo near and in the Yellowstone Park went on without being suspected; but in 1894 the

scout Burgess detected a hunter in the act of butchering a number that he had just killed in the Astringent and Pelican Creek districts. The poacher, Howell, was engaged in skinning a cow and was surrounded by the bodies of seven freshly killed buffalo, of which six were cows and one a yearling calf. Howell was arrested, held for some time in confinement and then set free, with orders to leave the Park and not return. There was still no law under which he could be punished.

This crime was undoubtedly one of the best things that ever happened for the Park. It was thoroughly exploited in *Forest and Stream*, and afterward in other periodicals, and created an interest throughout the country, which brought about the passage of the Park Protection Act, signed by President Cleveland, May 7, 1894. This was the ultimate reward of a number of men who, for a dozen years, had been working for the protection and betterment of the Yellowstone Park. It may fairly be said that since then that great reservation has never been exposed to any special dangers.

The Yellowstone Park had been set aside under peculiar conditions. The public—represented by those who urged the establishment of the Park—asked only that the territory might be withdrawn

from settlement, and was satisfied with that. But the people at large did not look forward to the existence of the reservation without government for a period of twenty-two years, nor did they realize the changed conditions which would prevail so soon as railroads reached the neighborhood of the Park. So long as the Park was isolated and to be reached only after five hundred miles of horseback or stage ride, the region might get along very well without law, but as soon as the Northern Pacific R. R. brought to it a large public, that public required to be governed.

The Boone and Crockett Club after its organization, acting through the personality of Geo. G. Vest, Arnold Hague, Wm. Hallett Phillips, W. A. Wadsworth, Archibald Rogers, Theodore Roosevelt and George Bird Grinnell, was finally successful in carrying through the law of May 7, 1894, and so saved the Park.

Much more might be written about the history of the Park. Further details will be found in Colonel Anderson's paper on the Protection of the Yellowstone National Park in "Hunting in Many Lands," the second volume of the Boone and Crockett Club's books, and in the files of *Forest and Stream*—which was the natural mouthpiece of the club—from 1882 to 1894.

At later dates, administrative services of great value were performed for the Park by members of the Club—Col. John Pitcher and Gen. S. M. B. Young—who at different times held the office of acting Superintendent. Both did much to preserve the game and to make travel through the Park easy for the public. Colonel Pitcher originated the plan of growing hay for the antelope, and repeatedly urged the enlargement of this method of game preservation, which, however, never received approval from Washington.

II.

The First Forest Reserves.

The attempt to exploit the Yellowstone National Park for private gain, in a way led up to the United States forest reservation system as it stands to-day.

From the year 1882 to 1890 a few members of the Club gave much attention to the Park. To them its preservation and protection seemed a most important public matter. These men were Arnold Hague, Wm. Hallett Phillips, G. G. Vest, Archibald Rogers, Grinnell, and later, Roosevelt. All

were familiar with the Park—one of them had been there as early as 1875—and had seen the changes which had taken place and the progressive destruction which followed the growing number of visitors. All knew how the timber had been cut off and the game killed by the so-called syndicate, which in 1882 attempted to secure a monopoly of the Park and all the concessions connected with it.

They had seen fires, started by careless campers, sweep over mountainside and valley, and had passed through mile after mile of burned forest, where charred tree trunks blackened the packs which brushed against them, and pine logs glowed and crumbled to ashes along the trail, and the forest floor on either side sent up clouds of acrid smoke from subterranean fires that ate their way among the dead and decayed vegetatation. Thus they all knew what forest fires sweeping over the Rocky Mountains might mean for the region devastated. To protect the Park, its forests and its game, seemed to them a vital matter. This was what they had set out to do; but as they saw more and more the dangers to which these forests were exposed, so the forests and the game of other regions became, in their view, more and more important.

The most pressing dangers to the Park passed; the Senate, with George Graham Vest as a watch-

ful guardian, could be trusted to prevent bad legislation. Then, as a natural sequence to the work that they had been doing, came the impulse to attempt to preserve western forests generally.

Meantime, another group of men was working on forestry matters. These were E. A. Bowers, B. E. Fernow and F. H. Newell—members of the American Forestry Association's Executive Committee—and they were active in the Interior Department and in Congress. Mr. Bowers was Secretary of the American Forestry Association in 1889-1891, and was appointed in 1893 Assistant Commissioner of the General Land Office; Fernow was Chief of the Division of Forestry of the Agricultural Department, and Newell was connected with the Geological Survey. Fernow was an educated forester and the father of many bills to conserve the forests of the public domain; Bowers and Newell were familiar with the West and with the dangers that threatened the forest there. Devoted to this work, they drafted a number of bills, which they submitted to Congress, frequently appearing before committees, urging that action should be taken to protect the forests.

In 1887 William Hallett Phillips, a member of the Club, had succeeded in interesting Mr. Lamar, Secretary of the Interior, and a number of Con-

gressmen, in the forests, and gradually all these persons began to work together. At the close of the first Cleveland Administration, while no legislation had been secured looking toward forest protection, a number of men in Washington had come to feel an interest in the subject. Some of the bills introduced in Congress passed one House and some the other, and finally one, the McCrea bill, so-called, passed both Houses, but did not reach the Conference Committee. Finally on March 3, 1891, was passed the bill on which our national forest system is based, entitled "An Act to Repeal Timber Culture Laws and for other Purposes." The meat of the bill, so far as forestry matters are concerned, is found in its Section 24, which seems to have originally been introduced in the Senate by the late Cushman K. Davis, of Minnesota, as a bill of a single section. It reads: "That the President of the United States may, from time to time, set apart and reserve in any State or Territory having public lands bearing forests, any part of the public lands, wholly or in part covered with timber or undergrowth, whether of commercial value or not, as public reservations, and the President shall, by public proclamation, declare the establishment of such reservations and the limits thereof."

The Act of March 3, 1891, was the result of a compromise. It had come over from the House to the Senate as a bill of a single section to repeal the Timber Culture law. Senator Pettigrew, then a member of the Public Lands Committee, states that the bill was amended in the Senate Committee by the addition of twenty-three other sections, of which the one providing for the establishment of forest reserves, was the last.

Gen. John W. Noble was then Secretary of the Interior, a man of the loftiest and broadest views and heartily in sympathy with the efforts to protect the forests. He induced President Harrison to sign the bill, and later, to set aside the first United State forest reserves, the earliest one being the Yellowstone Park Timber Reserve to the east and south of the Yellowstone Park. This was designed to further protect the Yellowstone Park, and Mr. Noble in determining the boundaries of this new reservation consulted Mr. Hague, whose knowledge of the matter was greater than that of any other man. When the Presidential proclamation establishing the reservation appeared, the boundaries were defined in the language used in Mr. Hague's recommendation to Mr. Noble.

The Boone and Crockett Club was quick to acknowledge Secretary Noble's first acts under the

new law, for at a meeting of the Boone and Crockett Club, held April 8, 1891, it was, on motion of W. H. Phillips, seconded by Arnold Hague,

Resolved, That this Society most heartily thank the President of the United States and the Honorable John W. Noble, Secretary of the Interior, for having set apart, as a forest reserve, the large tract situated in Wyoming, at the head waters of the Yellowstone and Snake Rivers, and for having set apart the Sequoia Park, for the preservation of the great trees of the Pacific Slope.

That this Society recognizes in these actions the most important steps taken of recent years for the preservation of our forests and measures which confer the greatest benefits on the people of the adjacent States.

Resolved, That copies of this resolution be sent to the President of the United States and the Honorable the Secretary of the Interior.

By the President of the Club: The Honorable Theodore Roosevelt.

That the inside history of this forestry work in this country should be unknown is natural enough. But that public and recorded acts should have been forgotten by those who ought to know about them is very surprising. In the periodical published by the American Forestry Association, known now as

American Forestry, but formerly as *Conservation,* appeared in October, 1909, the statement that Mr. Cleveland established the first national forests. This brought out from Robert Underwood Johnson, of the *Century Magazine,* a letter pointing out that, in fact, the first national forests were established under President Harrison's administration, and *Conservation,* now *American Forestry,* made the correction, but did scant justice to the excellent work in forestry accomplished by Secretary Noble and President Harrison.

The men of to-day, anxious for results, and absorbed in their own affairs, have quite forgotten those earlier men who made possible the work which the men of to-day are doing. Too often those who start a great movement and give it its initial impetus are lost sight of and receive not even the meagre justice of a mention of the part they played when struggling, almost alone, to bring about great reforms. Happily, in this case, the story of what General Noble had done was told with some fullness in the *Forest and Stream* of March 9, 1893, at the time General Noble went out of office. The article entitled "Secretary Noble's Monument" was recently reprinted in *American Forestry,* which says, with amusing naïveté, it "seems like an original source of ancient

history, so rapidly are we moving in this twentieth century." The article says:

"We have more than once called attention to the broad and far-seeing policy inaugurated by Secretary Noble in the matter of forest preservation in the less-inhabited portions of the country, and it is satisfactory to see that the daily press is now giving him credit for the great work he has done.

"It will be remembered that, beginning with the Yellowstone National Park, which was brought to the notice of Mr. Noble early in his administration, he has given much attention to the question of our parks and timber reservations. To say nothing of the Grant, Sequoia, and Tule River parks, the preservation of which we owe almost entirely to Mr. Noble, there were set aside soon after the Act of Congress of March 3, 1891, six timber reservations, embracing an estimated area of three and a quarter million of acres. Of these, three lie in Colorado, one in New Mexico, one in Oregon, and one in Wyoming, adjoining the Yellowstone National Park. Besides these forest reserves, Mr. Noble has considered as well the question of preserving our marine mammalian fauna of the Northwest coast, which is so rapidly disappearing under the constant persecution of white men and Indians, and has set aside an Alaskan island as a reservation.

"In December last there was established in Southern California a timber reservation near Los Angeles, including nearly 1,000,000 acres. This will be known

as the San Gabriel Timber Land Reservation, and includes all the mountains from Salidad Cañon, where the Southern Pacific Railroad passes through the mountains, eastward to the Cajon Pass. A little later another reservation of about 800,000 acres was announced, to be called the San Bernardino Mountain Forest Reservation. This adjoins the San Gabriel reserve and runs eastward from the Cajon Pass to San Gorgonio. Finally, the 14th of February, the Sierra Reservation was set aside. This comprises over 4,000,000 acres and takes in the high Sierra, extending southward from the line of the Yosemite National Park to the seventh standard parallel south. It includes the existing Grant, Sequoia, Tule River, and Mount Whitney reservations, and also the wonderful Kings River Cañon, which has been described by Mr. John Muir in the *Century Magazine.*

"This country is one of surpassingly beautiful scenery and contains some of the highest peaks to be found within the limits of the United States. It is of especial interest for its giant forests, many of which are yet untouched, and which contain the great sequoias, together with many other species of Pacific forest trees of remarkable interest and beauty. Besides this, the region is interesting as containing a considerable amount of game, and, on the high mountains, species of birds and mammals which are not found elsewhere in California.

"Far more important, however, to the country, from an economic point of view, is the preservation of the water supply, which will be insured by the setting aside of these reservations. Throughout mos'

of the Western country the question of water for irrigating purposes is the most vital one met by the settler, but it is only within a very few years that the slightest regard has been had to the farmer's needs."

Later in the administration other reservations were set aside.

The good work accomplished by Secretary Noble in persuading Mr. Harrison to set aside forest reservations was continued by his successor. Mr. Cleveland was greatly interested in the forests, as was also Secretary Hoke Smith. During the Cleveland Administration, Gifford Pinchot returned from his studies in Europe, and in 1896 was appointed by Secretary Hoke Smith special agent to look after matters pertaining to the forest reserves. In his investigations of these matters he traveled over much of the Western country and thoroughly familiarized himself with the forests of the Rocky Mountains and of the Pacific Slope. He learned also that the forest reserves as already set aside were very unpopular in the Western country, because the citizens of the West believed that in some way the Government was endeavoring to take from them certain rights that they possessed. The Western newspapers were full of complaints, and a bitter feeling prevailed.

One of the greatest services that Mr. Pinchot

has performed for forestry—and his services have been great—was that he made it his business to go into newspaper offices all over the land when this was practicable, and to patiently and laboriously explain to editors what forestry meant and why for any locality the preservation of the forests of that section is beneficial to that section, and instead of being a bad thing, is a good thing for its public. Mr. Pinchot was later appointed United States Forester, and soon after began the organization of a Bureau of Forestry as part of the Land Office of the Interior Department. What he has since done for conservation is still fresh in the public mind.

III.

New York Zoological Society.

The establishment of the New York Zoological Society, which manages the New York Zoological Park and the New York Aquarium, was the work of the Boone and Crockett Club. In the Club's volume, "Hunting in Many Lands," the history of this society has been told by Mr. Grant, who was the moving spirit in its organization. Briefly, it is as follows:

Beginning about the year 1880, a number of citizens of New York tried, with no apparent success, to arouse public interest in the establishment of a zoological garden which should be a credit to the chief city of the United States. There had been much talk on the subject, and many articles published, but nothing definite was done until 1890, when a bill was introduced into the Legislature at Albany, providing for the establishmen of a zoological park on city lands located north of 155th Street. One provision of the bill authorized the New York Board of Park Commissioners to turn over to this zoological garden the existing menagerie of the Central Park. This clause provoked violent opposition from certain city representatives, and the bill was defeated.

At the annual meeting of the Club, held January 16, 1895, the President, Theodore Roosevelt, appointed a committee, of which Madison Grant was chairman, to look after legislation in New York State in the interest of game preservation. One object for which this committee proposed to work was to found in New York City a zoological society which should conduct a zoological park on new lines, based on those principles of game preservation for which the Boone and Crockett Club stands.

W. W. Niles, Jr., was then a member of the Assembly, representing a district above the Harlem River, where it seemed probable that the proposed park would be located. The committee took the old bill to Mr. Niles, who agreed to push it on condition that the Boone and Crockett Club would organize the society, and that some of its members should appear as incorporators. The bill was amended in accordance with his suggestions, and Madison Grant and C. Grant La Farge were included among the incorporators. The bill, modified so as to do away with most of the opposition, passed the Assembly, and the New York Zoological Society was organized May 7, 1895. On its first board of directors were nine members of the Boone and Crockett Club, including two vice-presidents and both the secretaries.

The work of the Society began at once. After a year of investigation, the southern end of Bronx Park was chosen for the location of the Zoological Park, and in March, 1897, this area of two hundred and sixty-one acres was granted by the city to the New York Zoological Society. Within a year and a half the work of organizing and improving the Park had so far advanced that it was opened to the public. Its decennial celebration was held in 1909. In the year 1902 the New

York Zoological Society also took over from the city the New York Aquarium, and has since managed it. It has brought order out of chaos, has vastly improved the methods of exhibiting the collections, and more than doubled their size, besides so reorganizing the plant that they are kept in good health and do not require to be constantly renewed. The popularity of these two institutions is shown by the fact that during the year 1909 more than five and one-half millions of people visited the New York Zoological Park and the New York Aquarium.

Up to the present time the work of the Zoological Society has been chiefly in the direction of organization. It has established a park; it has provided collections; it has furnished buildings in which to house these collections. The time is coming—nay is even now at hand—when research work of a high order will be carried on under its auspices. Such work has already been begun, as is shown by various papers published by the directors of the two institutions and by the curators of their various departments.

In all this work the Boone and Crockett Club has had a chief part. All the chief officers of the Zoological Society and a number of the Board of Managers are members of the Club, as are also

some members of the Scientific Council. The New York Zoological Society has been and is a child of the Boone and Crockett Club.

IV.

Water-Killing Deer.

Long before the Club's establishment, efforts had been made to put an end to the barbarous practice of killing deer in the water in the Adirondacks. It was then the custom to put hounds upon the track of deer and drive them until they took to the lakes in the effort to throw off the hounds. When this took place, men rowed up to the animal and blew out its brains or cut its throat with a knife, or beat it to death with a club. This method of killing was utterly condemned by the Boone and Crockett Club, whose constitution, in its fifth article declares, that "the term 'fair chase' shall not be held to include killing bear, wolf or cougar in traps, nor 'fire hunting,' nor 'crusting' moose, elk or deer in deep snow, nor killing game from a boat while it is swimming in the water." Article X declares that the killing of game while it is swimming in the water is an

"offense" for which a member may be suspended or expelled from the Club.

Forest and Stream had for some years carried on a bitter war against water-killing deer, and on this account had become very unpopular in the Adirondacks. Bills introduced by the late Gen. Newton Martin Curtiss had many times been defeated, although one of them had been passed and for a short time became law. There was a constant struggle between the two parties in the Legislature, one desiring to put an end to the practice, the other to have it continued.

Early in 1897 bills were introduced, one by Hon. Wm. Cary Sanger, a member of the Club, forbidding the use of dogs for hunting deer at any time, and also forbidding owners of dogs to permit them to run at large. This bill was introduced at Mr. Grant's request, but was subsequently withdrawn in favor of the Ives bill, introduced a week later, January 20, which forbade fire-hunting, the use of traps or salt licks, the use of dogs in hunting deer, or permitting such dogs to run at large. This bill, earnestly pressed by the Boone and Crockett Club, finally became a law, and the hounding, and so the water-killing of deer ended.

V.

Alaska Game Law.

After the discovery of gold in Alaska and the rush thither of a horde of miners and other settlers, an enormous destruction of large game animals took place in that then unknown region, and in certain districts the game was exterminated. Some forms of life—caribou and bears—seemed to be threatened with extinction. It was apparent that game laws were needed here—that a foundation must be laid for the protection of these large animals over the one great area belonging to the United States, which is still unsettled. On the other hand, it was obvious that game was needed for food for the miners, while the natives depended for subsistence almost wholly on the wild animals.

Early in the year 1902, two members of the Club, John F. Lacey, of Iowa, and Madison Grant, of New York, prepared a bill to protect the game of Alaska, which Mr. Lacey introduced in the House of Representatives. It prohibited the killing of wild game animals, or wild birds, for purposes of shipment from the District of Alaska. Game animals and birds were defined. Fur-

bearing animals, such as fur seal, sea otter and all fur-bearing animals, save bears and sea lions, were excepted from the provisions of the act so far as native Indians or Eskimo were concerned; but natives were not permitted to sell meat or heads. Seasons were established for killing animals and birds, and the Secretary of Agriculture was authorized, whenever it should be necessary for the preservation of game birds or animals, to make and publish rules and regulations which should modify the close seasons established in the bill, or further restrict the killing or entirely prohibit it for five years. The selling of hides, skins or heads, or their shipment, was forbidden, except for scientific purposes. The bill became law.

When this Act was passed it was reported that cold storage warehouses were to be built at Skagway and Valdez, where all the meat that could be obtained should be frozen and held indefinitely. One purpose of the bill was to cut this off, but its chief object was to prevent an export trade by taxidermists in the heads of the giant moose and the white sheep, which were then greatly sought after. It was also regarded as highly desirable to establish the principle that a game law was needed in the territory.

In March, 1904, a bill was introduced in Con-

gress looking to the repeal or modification of the Alaska game laws. This repeal, engineered by Senator Dillingham on his return from a trip to Alaska, brought on an earnest struggle between the Club on the one hand and Senator Dillingham on the other. After much discussion and the production of not a little testimony by both sides, Senator Dillingham withdrew the bill.

The present Alaska game law, drafted by Hon. W. E. Humphrey in 1908, is a modification of the old law.

It is obvious that a game law for Alaska, to be effective, must have the moral support of the best people in the territory. Over a region, much of which is still untrodden and which is traversed by men who of necessity must live largely on the country, a law that forbids men to kill food for themselves while traveling, cannot have popular support. The vastness of Alaska, the conditions of a region yet unsettled, and the limited number of officials who can be called on to enforce the law, must make any statute that does not appeal to the intelligence of the settlers a mere dead letter.

The present law is quite ineffective, and its provisions are enforced only against the exporting sportsmen and taxidermists. Against these it works well.

The Canadian government in the Yukon Territory has good laws, which have popular support. This is largely because they have an efficient force of officers, the Northwest Mounted Police, and residents of Canada recognize the fact that when these policemen set out to arrest a man they do not stop until they have got him. In Alaska the game laws are supposed to be enforced by the United States Marshals, most of whom feel no interest whatever in the game laws, and will not start out to look for a man unless guaranteed expenses of ten dollars a day. The Canadian government endeavors to make it easy for its citizens to supply themselves with meat, but when the killing reaches undue proportions, or the game leaves a certain district where it has been abundant, hunting in that district is stopped for a time. Their laws give power to the police to do many things, but they also hold the police strictly accountable for their actions. In this way they get from them excellent service. The United States Marshals, on the other hand, are not held to strict responsibility, and exert themselves only in situations where public opinion insists that they do so.

If Congress will set aside as a game refuge some considerable tract of Alaska land where no mines are known to exist, and in a territory suitable for

the winter and summer ranges of moose, caribou and wild sheep, much may be done to preserve Alaska game. It seems clear that the great brown bears of the Alaska Peninsula, of the coast to the southward, and of the islands, must take their chance of survival. It will probably be long before they will be exterminated, and before then some means may be devised for setting aside a reservation for them.

VI.

Game Refuges and Collateral Movements.

The principle of game refuges—the declaration that a necessary step in the work of game protection is the establishment of areas in which animals may not be pursued or hunted—was first set forth by the Club soon after the publication of the "American Big Game Hunting," which appeared 1893. In that volume it was said:

"The forest reserves are absolutely unprotected. Although set aside by presidential proclamation they are without government and without guards. Timber thieves may still strip the mountain sides of the growing trees, and poachers may still kill the game without fear of punishment.

"This should not be so. If it was worth while to establish these reserves, it is worth while to protect them. * * * The timber and the game ought to be made the absolute property of the government, and it should be constituted a punishable offense to appropriate such property within the limits of the reservation. * * *

"The national parks and forest reserves * * * by proper protection may become great game preserves. * * * In these reservations is to be found to-day every species of large game known to the United States, and the proper protection of the reservations means perpetuating in full supply of all these indigenous mammals."

The abuses here alluded to were in part remedied by the Act of May 7, 1894, but only so far as concerned the Yellowstone Park. To protect the Yellowstone Park was well for the Yellowstone and the surrounding country, but did nothing for the rest of the country. The Club urged then, and still insists, that portions of the forest reserves shall be set aside as game refuges where the killing of wild animals shall be absolutely forbidden. Constant efforts have been made to emphasize this, and long before he took the Presidential chair, Theodore Roosevelt spoke in its behalf before many associations.

In 1901, speaking of the forest reserves, he said:

"Some at least of the forest reservations should afford perpetual protection to the native fauna and flora, for havens of refuge to our rapidly diminishing wild animals of the larger kinds, and free camping grounds for the ever increasing numbers of men and women who have learned to find rest, health and recreation in the splendid forest and flower-clad meadows of our mountains. The forest reserves should be set apart forever for the use and benefit of our people as a whole, and not sacrificed to the short-sighted greed of a few."

In February, 1902, John F. Lacey, of Iowa, introduced in the House of Representatives a bill to transfer the administration of the forest reserves to the Department of Agriculture. Its second section authorized the President to set apart by executive order as fish and game preserves, such forest reserves, or parts of them, as he might deem best. It authorized the Secretary of the Department in charge of which the forest reserves should be, to make rules and regulations providing for the protection of the forests, the fish and the game, and to establish methods of trial, and fixed penalties, in case of conviction of the infraction of any regulations so established. The Committee on Public Lands, to which the bill had been referred, gave

considerable attention to the subject of game protection, and submitted an opinion from the Attorney-General to the general effect that it was possible by legislation lawfully to protect the game and fish of the reserves. The bill failed to pass.

In the year 1903 Alden Sampson, then Secretary of the Boone and Crockett Club, was appointed game reserve expert by the Secretary of Agriculture, and, working under the Biological Survey, spent much time on the Pacific Coast studying conditions there. In addition to his investigations, Mr. Sampson performed good work for game preservation, lecturing and talking in its behalf. In "American Big Game in Its Haunts," the fourth volume of the Boone and Crockett Club books, he had an interesting paper on the creating of game preserves, which deals very fully with his work on the Pacific Coast, points out the necessity of game refuges there, and shows how effectively such refuges would protect the game.

No argument is required to demonstrate this. In the Yellowstone Park we have a perpetual object lesson. Here the elk exist in such abundance that in severe winters they starve to death, while when they leave certain sections of that Park and move down into Jackson's Hole, in their search for food they destroy the fences, hay and other prop-

erty of the farmers. Large refuges in one or more of the forest reserves at such altitudes that the elk would not be forced to leave them at the approach of winter, as they do in the Yellowstone Park, would soon be filled, and the elk would scatter out among the mountains, for the benefit of the adjacent public.

In the second session of the Fifty-seventh Congress a bill providing for the establishment of game refuges by the President in public forest reserves, not exceeding one in each State or Territory, passed the Senate February 7, 1903, and went to the House, where it failed. The bill provided that the killing or capturing of game animals, birds and fish upon the lands and in the waters of the United States within the limits of said area shall be unlawful, and that any one violating the provisions of the Act should, on conviction, be fined not more than a thousand dollars or imprisoned for a period not exceeding one year, or suffer both fine and imprisonment, at the discretion of the court. The purpose of the Act was declared to be to protect from trespass the public lands of the United States, the game animals, birds and fish thereon, and not to interfere with the local game laws as affecting private State or Territorial lands.

Early in 1894, the *Forest and Stream* recommended that sportsmen who really desired the preservation of our game should adopt as a plank in their platform—or as an article of faith in their creed—the declaration that "The sale of game must be forbidden at all times." This, to the general public when first announced, seemed an entirely novel and impractical idea, and was generally laughed at. The Boone and Crockett Club, however, instantly recognized the importance of the principle, and led the way in teaching thinking sportsmen to see that the most certain and effective method to end market hunting was to cut off the market in which professional hunters sold their game.

The principle announced sixteen years ago has in an astonishingly short time found general acceptance throughout North America, and in one form or another is now embodied in the statutes of most of the North American States, Provinces and Territories. Its importance has been recognized on other continents and the principle has been put in practice by the British in Africa. It is one of the most far-reaching steps ever taken to protect indigenous fauna.

In the year 1904, Hon. George Shiras, 3d, a member of the Club, introduced into the House of

Representatives a bill whose purpose was to put migratory birds and fish under control of the United States Government. The protection of game and fish has been under the care of the local authorities of the different States, and the effort to transfer them from the charge of the States to the charge of the Federal Government, though by most people acknowledged to be desirable, was at first believed to be unconstitutional. The matter was discussed by a number of lawyers, among whom were Mr. Shiras, Judge D. C. Beaman and Hon. H. L. Stimson. These three gentlemen took three diverse views of the matter.

In 1906, Mr. Shiras wrote a long brief on the subject, which was printed in that year in *Forest and Stream*. It shows much research. The Shiras bill never came to a vote, and in fact was introduced only for the purpose of bringing the matter before the public.

The principle of game refuges should have the broadest application. Major Wadsworth advocates encouraging the farmers everywhere to set aside tracts in which neither owners nor any others except the designated killers of vermin may trap or shoot. Refuges should be established everywhere for mammals and for birds. It is the most important thing for which sportsmen should now work.

VII.

Glacier National Park.

In the early days of the Club's history, one of its members was a frequent visitor to a section in Montana, now well known. This is the St. Mary's country, whose great landmark, Chief Mountain, is so impressive. The region possessed peculiar interest for the hunting it offered, for mountain climbing, or for the study of the Indians, whose country it was. In all America there is probably no such beautiful land, which is at the same time easily accessible, and which has been so great a game country. In the last years of the last century Mr. Grinnell described this section in an article entitled the "Crown of the Continent," and recommended that it be set apart as a national park. Later, Senator Thomas H. Carter, of Montana, a member of the Club, introduced in Congress a bill to establish the Glacier National Park. The citizens of Montana were heartily in favor of this measure, as were the scientific men, travelers and hunters, who had visited the region. The bill more than once passed the Senate, and early in 1910 passed both Houses of Congress, and on May 12 was approved by the President and became

law. This Park the country owes to the Boone and Crockett Club, whose members discovered the region, suggested its being set aside, caused the bill to be introduced in Congress and awakened interest in it all over the country.

VIII.

Canada's Rocky Mountain Reservations.

The setting aside of the Glacier National Park in Montana, just south of the Boundary Line, calls renewed attention to the quiet work done in Canada within the past few years in establishing parks and reservations which shall protect the natural resources of that broad region. In 1895 the Waterton Lakes Forest Park, situated on the International Boundary Line, about thirty miles southwest of Cardston, Alberta, and adjoining the Glacier National Park, was set aside by order in Council. Subsequently it was included as one of the Forest Reserves in the Forest Reserve Act of 1906, and later it was decided to administer it as one of the series of Dominion Parks. The regulations under which it is administered provide for the protection of game, and limit the fishing

in respect to manner of capture, quantity, size and season.

The Canadian Government has also reserved from sale and settlement, in the interest of the conservation of forests, and the protection of the water supply, the rougher forested portions of the eastern slopes of the Rocky Mountains. This reservation comprises approximately 14,400 square miles. It begins at the International Boundary and runs about 410 miles in a northwesterly direction, following the crest of the main range of the Rocky Mountains, which forms the boundary between the Provinces of Alberta and British Columbia to the intersection of that line with the 120th meridian. The strip of land is irregular in width, from ten to thirty miles wide up to the 51st parallel, thence widening to a width of from thirty to fifty miles up to the 54th parallel, where it tapers to the 120th meridian.

In the tract described are situated the Waterton Lakes Park, the Rocky Mountains Park, with an area of 4500 square miles, and the Jaspar Forest Park with an area of 5000 square miles. In these parks, hunting and shooting are forbidden, but fishing may be done under adequate regulation. These parks, therefore, are game refuges, in which for all times those animals indigenous to them—

and such others as may be successfully introduced —may live undisturbed. In the portions of the great reserve not already set aside as parks, hunting and trapping will be permitted under restrictions.

Here is a vast area, giving a territory of approximately sixteen thousand square miles of mountainous territory, brought under special administration by two neighboring countries. This action will secure not only the protection of the forests, and the water supply, but also the fish, game and bird life, and will preserve for the enjoyment of this and future generations the untouched beauty and charm of the everlasting hills.

A large herd of buffalo, purchased in western Montana, was transported to Canada and set free in a large park near Edmonton, Alberta, where they are doing extremely well, and promise great increase.

For much of this all English-speaking residents of North America have to thank Hon. Frank Oliver, the Dominion Minister of the Interior, a member of the Boone and Crockett Club, whose keen intelligence looks far enough into the future to enable him to provide for changes which many of us are as yet unable to foresee.

IX.

Examples of Local Work.

Besides these larger matters, which have a general interest for the whole country, different members of the Club, at various times and in various places, have performed excellent work, whether by enforcing existing laws, moulding public opinion in one direction or another, or influencing individuals to act in behalf of wise game protection. Two examples of such work may be cited, one many years ago in Wyoming Territory, another much more recent, in New York.

In the year 1888, three members of the Boone and Crockett Club—Col. Wm. D. Pickett, Archibald Rogers and T. Paton—assisted by Otto Franc, a local Justice of the Peace, undertook the first enforcement in the Territory of Wyoming of the laws for the protection of game. Jim Gehman was appointed game constable October 1, 1888, and it was understood that for the district about Grey Bull River the existing game laws were to be enforced.

The mere fact that a game constable had been appointed caused a stampede from the region by all the head, hide and meat hunters, and in this

way much game, chiefly elk, sheep and antelope, was saved from destruction. Many hunting parties coming in from Montana were turned back and several arrests were made, one man being followed over one hundred miles before he was caught.

The hostility and odium incurred by the projectors of this movement to enforce the game laws was very great, and many threats were made of what would be done to them; but in the picturesque language of the time and country neither Pickett, Rogers nor Paton "scared worth a cent." Jim Gehman had already shot his man in self-defense, and had demonstrated that he was not to be trifled with.

An amusing incident of this working toward protection occurred at this time, when a prominent member of the Boone and Crockett Club, unacquainted with the law, came into the mountains to hunt, and fell into Jim's hands. He was obliged to turn back.

The good work went on during the following year, 1889, and much less feeling was shown by the residents, as they began to realize that what was being done was for the best interests of all.

In September, 1888, Colonel Pickett had been elected to the Legislature of Wyoming, and took

his seat January, 1890. He was appointed chairman of the Game and Fisheries Committee of the House, which passed a very sensible set of game laws, March 14, 1890.

In this way a few resolute men, members of the Boone and Crockett Club, accomplished in the then unsettled region of northwestern Wyoming, work which preserved from extinction all the larger game animals until the time came when the tide of settlement swept over the whole country.

When this tide of settlement came, the herds of elk, mountain sheep and antelope were in part pushed higher up into the mountains and finally over their crest, and drifted west. In and about the Yellowstone National Park, the descendants of these animals may be found to-day.

Good local work was done by Major W. Austin Wadsworth, the President of the Club, who was appointed President of the New York Forest, Fish and Game Commission by Governor Roosevelt in 1900. No one knew better than Major Wadsworth the needs of New York State as to the protection of forests, fish and game, and no man occupying the position of President of the Game Commission ever worked harder to accomplish results. His labors were devoted especially to the protection of the forests and to efforts to secure

legislation looking toward the purification of the waters of the State. The economic importance of this question of pure water, long ago recognized by a few, is, curiously enough, as yet of no interest whatever to the general public, though on it depend vast economic interests—the inland fisheries of the State—and, still more vital, the public health.

In the Sixth Annual Report of the Forest, Fish and Game Commission, Major Wadsworth recommended that certain measures be taken to prevent forest fires; that the killing of does be prohibited at all times; and that spring duck shooting be forbidden. The Legislature's attention was especially called to the difficulty of enforcing the law in regard to the pollution of streams. "This is a matter of vital importance and not to be dismissed as affecting only the lives of some fishes, the pleasures of some anglers or the dividends of some pulp mills. We are a water-drinking people, and we are allowing every brook to be defiled. Nature provides that they should be kept pure. * * * It is not necessary to destroy or hamper any industry in order to prevent the pollution of watercourses. What is really needed is to check the criminal selfishness of those who would rather poison their fellow citizens with their offal than to spend a few dollars to take care of it."

These were strong words, and might have been expected to move the Legislature—or if not the Legislature, then the public—out of its attitude of stolid indifference, but nothing of the sort took place. No serious attempt has been made to provide for the purification of our streams, and the old struggle, carried on by the few who are interested in this vital matter to arouse the many who as yet care not one whit about it, goes on and will go on.

No details can be given concerning the noteworthy services performed by many members of the Club in the fields of science, exploration and conservation; but some distinguished names may be mentioned. The list of scientific men includes J. A. Allen, Arthur Erwin Brown, D. G. Elliott, Arnold Hague, Clarence King, Henry S. Prichett, C. H. Merriam, Henry Fairfield Osborn, Chas. H. Townsend and Chas. D. Walcott. Among travelers and explorers are Col. D. L. Brainard, Wm. Astor Chanler, W. T. Hornaday, A. P. Low, Warburton Pike, W. W. Rockhill, Theodore Roosevelt, F. C. Selous, A. Donaldson Smith, Wm. Lord Smith, Chas. Sheldon and Wm. Fitzhugh Whitehouse. Men in high government authority who have performed notable services for

game and forest preservation, and conservation generally, are Gen. John W. Noble, formerly Secretary of the Interior; Hon. Frank Oliver, Minister of the Interior for the Dominion of Canada; Senator T. H. Carter, Hon. John F. Lacey and Gifford Pinchot, formerly United States Forester. All these men have served well their fellow men.

Within the last twenty years the Boone and Crockett Club has been consulted and has worked for or against legislation in various parts of North America. From all over the land persons interested in game protection bring to it their problems and ask its advice. In addition to this, the officers of the Club have often been consulted as to conditions in foreign countries, and the best forms for game laws. Mr. Grant is responsible for portions of the present game laws of Newfoundland, and it was he who suggested that a strip of protected land should be set aside on either side of the Newfoundland Railway, on which the migrating caribou might not be killed or pursued. Out of the setting aside of this strip grew the laying off of a similar strip along the Uganda Railway in British East Africa, which has resulted in an extraordinary abundance of game there. Suggestions and advice have been given with regard to public parks and game reserves in British Columbia, and correspon-

dence had with the Governor-General of Canada in recent years, was followed by action looking toward the protection of the wood buffalo and the musk-ox.

It thus appears that since its establishment in 1888, the purposes and activities of the Boone and Crockett Club have wholly changed—it might be said, have been reversed. Beginning as a club of riflemen, apparently concerned only with their own recreation, it early discovered that more important work was to be done in the field of protection than in that of destruction. No sooner had the Club been organized and begun to consider the subjects which most interested it, than it became apparent that on all hands the selfishness of individuals was rapidly doing away with all the natural things of this country, and that a halt must be called. The Club was fortunate in numbering among its members certain men, who had been active in various fields, and when a subject came up that required investigation, some member of the Club was usually found who either knew the subject or knew where to go for information concerning it.

A detailed history of the Club during the past twenty years would be of much interest and would show far better than can a reminiscent paper, such

as this, its usefulness and its influence. It has not been the Club's practice to announce its purposes, nor to glory in what it has accomplished, but rather to move steadfastly forward, striving constantly to do whatever fell within its province which would tend to promote the country's welfare. Some members not closely in touch with the Club's active work are not well informed as to what it has done, and it is in a measure for the purpose of acquainting such members with facts of its accomplishments that this paper has been prepared.

It would have been natural and easy for the Club to have confined its activities to meeting at intervals to dine, and discuss abuses and dangers, and to pass stirring resolutions, about them. Instead of this, it has had a small body of intelligent men, scattered all over the country, working individually and constantly in behalf of things once laughed at or unknown, but now as familiar to the public mind as household words. The results accomplished by the Boone and Crockett Club bear testimony to the alertness and energy of its members, and to the success of the methods which they have pursued.

OFFICERS
OF THE BOONE AND CROCKETT CLUB
1913.

President.

William Austin Wadsworth.....Geneseo, N. Y.

Vice-Presidents.

Arnold Hague.....Washington, D. C.
Walter B. Devereux.....Colorado
Archibald Rogers .....New York
George Bird Grinnell.....New York
Madison Grant .....New York

Secretary.

Henry G. Gray.....49 Wall St., New York

Treasurer.

W. Redmond Cross.....33 Pine St. New York

Executive Committee.

William Austin Wadsworth, *ex-officio,* Chairman.
Henry G. Gray, *ex-officio.*
W. Redmond Cross, *ex-officio.*

Lewis Rutherfurd Morris,
Edward Hubert Litchfield, } To serve until 1914.

Charles Sheldon,
William K. Draper, } To serve until 1915.

George L. Harrison, Jr.,
Winthrop Chanler, } To serve until 1916.

COMMITTEES

Game Preservation Committee.

Charles Sheldon, Chairman.

J. Walter Wood, Charles H. Townsend,
W. Redmond Cross, E. W. Nelson,
Edward Hubert Litchfield, Alexander Lambert.

George Bird Grinnell,
Lewis Rutherfurd Morris, } *Advisory Members.*

Finance Committee.

Henry G. Gray, Chairman.....New York, N. Y.
Lewis Rutherfurd Morris.....New York, N. Y.
Daniel Moreau Barringer.....Philadelphia, Pa.
Lyman M. Bass.....Buffalo, N. Y.
George L. Harrison, Jr.....Philadelphia, Pa.
Henry Clay Pierce.....New York, N. Y.
William B. Bogert.....Chicago, Ill.
Percy C. Madeira.....Philadelphia, Pa.
William Astor Chanler.....New York, N. Y.
George Shiras, 3d.....Pittsburgh, Pa.
Robert Parkman Blake.....Boston, Mass.
W. B. Mershon.....Saginaw, Mich.
James Hathaway Kidder.....New York, N. Y.
Frank C. Crocker.....Hill City, S. D.
George H. Gould.....Santa Barbara, Cal.
Lewis S. Thompson.....Red Bank, N. J.

House Committee.

Chas. Stewart Davison, Chairman.

Henry G. Gray, Alexander Lambert.

Editorial Committee.

George Bird Grinnell...238 East 15th St., New York
Theodore Roosevelt.....Oyster Bay, N. Y.

REPORT OF NOMINATING COMMITTEE

The Nominating Committee respectfully reports that it has given careful consideration to the general situation in relation to nominations and the various classes of membership of the club, and that it has deemed it desirable in connection with making the regular nominations for executive officers to make certain further recommendations to the club concerning Honorary Membership. It is aware that Honorary members are elected by the Executive Committee and not by the club at large; but is nevertheless of opinion that the Executive Committee would prefer to learn the views of the club before taking action along the line which it desires to suggest. It therefore takes this method of obtaining such an expression of view. It calls to the club's attention that there have been four Honorary members, all now deceased: Judge Caton, Mr. Parkman and Generals Sheridan and Sherman. Meanwhile conditions here in the United States in relation to the shooting of large game have materially altered during the past fifteen to twenty years and will change in the future even more rapidly. Sportsmen must necessarily go further afield, and large game shooting as also the protection of large game, is year by year assuming more and more of an international aspect. Under these circumstances the committee

have given consideration to the position taken by the Shikar Club and to the objects of that club as set forth in its annual. The committee calls the attention of the Boone and Crockett Club to the following expression of those objects; that is, the recital by the Shikar Club of its cordial sympathy with the objects of its sister society known as "The Fauna" with which it has many members in common, to wit: the preservation of wild species within the British Empire and the bringing home, as they say, to their rulers of their responsibility in the matter.

The Shikar Club continuing, recites among its objects: the development of the social side of sport; the bringing together of camp-fire friends, the old-time hunter and the young aspirant; the maintaining of a standard of sportsmanship; the inculcating of a love of forest, mountain and desert, and of the knowledge of the habits of animals; the encouraging of the strenuous pursuit of a wary and dangerous quarry; the development of the instinct of a well-devised approach and of the patient retrieving of wounded animals. These points, as we all know, have occupied more and more of the attention of this club also. All these objects are similar to those of the Boone and Crockett Club. Indeed, it is not too much to say that this club served as a model for the Shikar Club. In one matter, however, the Shikar Club has recognized an opportunity which this club has neglected; that is, in electing to Honorary Membership distinguished foreign sportsmen. Among them three of our own membership figure—our Secretary, Mr. Grant, our Asso-

ciate Member, Dr. Hornaday, and our first President, Mr. Roosevelt. Austria, France, Russia, Bohemia and Roumania are also represented.

The Nominating Committee, therefore, recommends that while not limiting the Honorary Membership to foreigners, the Executive Committee should elect to such membership a certain number of others than Americans, distinguished in other parts of the world for adherence to the objects which this club was founded to attain; to the end that there shall arise more of an interchange of view upon, and mutual assistance in subjects of common interest; that such of our members as may pursue sport with the rifle in other countries may be brought more closely in relation with foreign sportsmen, and that the general interest, without which the particular interest cannot be subserved, may be added.

The Nominating Committee, therefore, requests the club to recommend to the Executive Committee that certain elections be made to Honorary Membership, to wit:

From among the present membership of this club, our former President, Mr. Theodore Roosevelt, our Associate Member, the President of the American Museum of Natural History, Prof. Henry Fairfield Osborn, and from our present list of active members, Col. William D. Pickett, one of our Vice-Presidents, and Dr. Daniel Giraud Elliot. And that the Executive Committee take up the question of increasing the Honorary Membership by the selection and electing of a certain number of distinguished foreign sports-

men not to exceed five in any year, and in that connection that it consider the names of those who compose the Shikar Club and any strictly similar sporting clubs on the continent of Europe.

In regard to the regular executive officers to be elected, the Nominating Committee recommends the following names:

For President: Wm. Austin Wadsworth, of Geneseo, N. Y.

For Vice-Presidents: Messrs. Arnold Hague, of Washington, D. C.; Walter B. Devereux, of Colorado; Archibald Rogers, of New York. And (if the club and Executive Committee shall look favorably on the recommendations concerning the Honorary Membership list) to fill the vacancies created by the transferring to that list of Messrs. Pickett and Roosevelt, the Nominating Committee recommends the names of Messrs. George Bird Grinnell and Madison Grant, both of New York, as Vice-Presidents.

For Secretary: The Nominating Committee recommends Mr. Henry G. Gray, understanding that for a year Mr. Grant, who has been our efficient Secretary for so long, will act as Honorary Secretary and familiarize Mr. Gray with the work of his department..

For Treasurer: The Nominating Committee, in view of the refusal of Mr. C. Grant LaFarge to accept a renomination, recommends Mr. William Redmond Cross.

To fill the vacancies on the Executive Committee the Nominating Committee recommends Mr. George L. Harrison, Jr., and Mr. Winthrop Chanler.

For the Editorial Committee, the Nominating Committee recommends Mr. George Bird Grinnell and Mr. Theodore Roosevelt.

All of which is respectfully submitted.

CHARLES STEWART DAVISON,
BAYARD DOMINICK, JR.,
WILLIAM REDMOND CROSS.

REPORT OF THE TREASURER

FROM FEBRUARY 1, 1912, TO FEBRUARY 1, 1913.

Balance in bank, February 1, 1912.....		$2,133.97
1912 Annual Dues.....	$1,000.00	
1912 Initiation Fees.....	100.00	
Subscriptions to date to Special Fund for the Preservation of wild life in North America..	3,760.00	
		4,860.00
		$6,993.97
Disbursements:—		
Rent to February 1, 1913....	$507.00	
Printing, etc.	418.95	
Storage on B. & C. Club box..	3.00	
Refreshments, meeting April, 1911	9.35	
Bookcase	12.74	
Washington dinner in May, 1912, cost for 12 guests....	78.00	
Typewriting, telephone calls, clerical work, postage, etc...	191.32	
Operator, screen and lantern, meeting of December 17....	10.00	
Bank exchange	1.41	
		1,231.77
Balance		$5,762.20

REPORT OF AUDITING COMMITTEE

February 20, 1913.

This is to certify that we have examined the account of the Treasurer of the Boone and Crockett Club attached hereto, and find the same correct; that all the expenditures are proper, and that the balance is as stated.

W. R. CROSS
AMOS PINCHOT, } *Auditing Committee.*

CONSTITUTION

FOUNDED DECEMBER, 1887

Article I.

This Club shall be known as the Boone and Crockett Club.

Article II.

The object of the Club shall be:

1. To promote manly sport with the rifle.

2. To promote travel and exploration in the wild and unknown, or but partially known, portions of the country.

3. To work for the preservation of the large game of this country, and, so far as possible, to further legislation for that purpose, and to assist in enforcing the existing laws.

4. To promote inquiry into, and to record observations on, the habits and natural history of the various wild animals.

5. To bring about among the members the interchange of opinions and ideas on hunting, travel and exploration; on the various kinds of hunting rifles; on the haunts of game animals, etc.

Article III.

No one shall be eligible for Regular Membership who shall not have killed with the rifle, in fair chase, by still-hunting or otherwise, at least one adult male individual of each of three of the various species of American large game.

Article IV.

Under the head of American large game are included the following animals: Black bear, grizzly bear, brown bear, polar bear, buffalo (bison), mountain sheep, woodland caribou, barren ground caribou, cougar, musk-ox, white goat, elk (wapiti), pronghorn antelope, moose, Virginia deer, mule deer, and Columbia black-tail deer.

Article V.

The term fair chase shall not be held to include killing bear or cougar in traps, or crusting moose, elk, or deer in deep snow, or calling, jacking, or killing them from a boat while swimming, or any method other than fair stalking or still-hunting.

Article VI.

This Club shall consist of not more than one hundred regular members, and of such Associate and Honorary members as may be elected by the Executive Committee. Associate members shall be chosen

from those who by their furtherance of the objects of the Club, or general qualifications, shall recommend themselves to the Executive Committee; but except, for special reasons satisfactory to the Executive Committee, no one eligible to Regular Membership shall be elected to Associate Membership. Associate and Honorary members shall be exempt from dues and initiation fees, and shall not be entitled to vote.

Article VII.

The officers of the Club shall be a President, five Vice-Presidents, a Secretary, and a Treasurer, all of whom shall be elected annually. There shall also be an Executive Committee, consisting of six members, holding office for three years, the terms of two of whom shall expire each year. The President, the Secretary, and the Treasurer shall be *ex-officio* members of the Executive Committee.

Article VIII.

The Executive Committee shall constitute the Committee on Admissions. The Committee on Admissions may recommend for regular membership, by unanimous vote of its members present at any meeting, any person who is qualified under the foregoing articles of this Constitution. Candidates thus recommended shall be voted on by the Club at large. Six blackballs shall exclude, and at least one-third of the members must vote in the affirmative to elect.

Article IX.

The entrance fee for regular members shall be twenty-five dollars. The annual dues of regular members shall be ten dollars, and shall be payable on February 1st of each year. Any member who shall fail to pay his dues on or before August 1st following shall thereupon cease to be a member of the Club. But the Executive Committee, in its discretion, shall have power to reinstate such member.

Article X.

The use of steel traps, the making of large bags, the killing of game while swimming in water, or helpless in deep snow, and the unnecessary killing of the females or young of any species of ruminant, shall be deemed offenses. Any member who shall commit such offenses may be suspended, or expelled from the Club by unanimous vote of the Executive Committee.

Article XI.

The officers of the Club shall be elected for the ensuing year at the annual meeting.

Article XII.

This Constitution may be amended by a two-thirds vote of the members present at any annual meeting of the Club, provided that notice of the proposed amendment shall have been mailed, by the Secretary, to each member of the Club, at least two weeks before said meeting.

RULES OF THE EXECUTIVE COMMITTEE REGARDING PROPOSALS FOR MEMBERSHIP

1. Candidates must be proposed and seconded in writing by two members of the Club.

2. Letters concerning each candidate must be addressed to the Executive Committee by at least two members, other than the proposer and seconder.

3. No candidate for regular membership shall be proposed, seconded or endorsed by any member of the Committee on Admissions.

Additional information as to the admission of members may be found in Articles III, VI, VIII and IX of the Constitution.

LIST OF MEMBERS
OF THE BOONE AND CROCKETT CLUB

REGULAR MEMBERS.

COPLEY AMORY, 41 Park Row, New York
JAMES W. APPLETON, Knickerbocker Club, New York
ROBERT BACON, 1 Park Ave., New York
DANIEL MOREAU BARRINGER, 370 Bullitt Bldg., Philadelphia, Pa.
LYMAN M. BASS, 558 Ellicott Square Bldg., Buffalo, N. Y.
FRANKLIN S. BILLINGS, Woodstock, Vt.
GEORGE BIRD, Union Club, New York
ROBERT PARKMAN BLAKE, Millis, Mass.
GEORGE BLEISTEIN, 438 Delaware Ave., Buffalo, N. Y.
WILLIAM J. BOARDMAN, 1801 P St., N.W., Washington, D. C.
WILLIAM B. BOGERT, 306 Postal Telegraph Bldg., Chicago, Ill.
ADMIRAL WILLARD H. BROWNSON, 1751 N St., N. W., Washington, D. C.
EDWARD F. BURKE, Maryland Club, Baltimore, Md.
JOHN LAMBERT CADWALADER, 40 Wall St., New York
ROYAL PHELPS CARROLL, 319 Fifth Ave., New York
HON. WILLIAM ASTOR CHANLER, Knickerbocker Club, New York
WINTHROP CHANLER, 32 Liberty St., New York
C. ARTHUR COMSTOCK, 40 Exchange Pl., New York
FRANK C. CROCKER, Hill City, South Dakota
WILLIAM REDMOND CROSS, 33 Pine St., New York
CHARLES P. CURTIS, Ames Building, Boston, Mass.
DR. PAUL J. DASHIELL, U.S. Naval Academy, Annapolis, Md.
MORGAN DAVIS, 45 Wall St., New York

CHAS. STEWART DAVISON, University Club, New York
CHARLES DEERING, 9 West 52d St., New York
H. CASIMIR DE RHAM, 960 Park Ave., New York
WALTER B. DEVEREUX, 60 Broadway, New York
BAYARD DOMINICK, JR., 115 Broadway, New York
DR. WILLIAM K. DRAPER, 121 East 36th St., New York
J. COLEMAN DRAYTON, 829 Park Ave., New York
MAJOR ROBERT TEMPLE EMMET, Ashfield, Mass.
MAXWELL EVARTS, 165 Broadway, New York
ROBERT H. MUNRO-FERGUSON, Cat Cañon, Silver City, New Mexico
JOHN G. FOLLANSBEE, Union Club, New York
DR. W. H. FURNESS, 3D, Wallingford, Delaware Co., Pa.
DEFOREST GRANT, 22 East 49th St., New York
MADISON GRANT, 22 East 49th St., New York
HENRY G. GRAY, 49 Wall St., New York
JOSEPH C. GREW, Department of State, Washington, D. C.
GEORGE BIRD GRINNELL, 238 East 15th St., New York
WILLIAM MILNE GRINNELL, 21 West 31st St., New York
ARNOLD HAGUE, 1724 I St., N. W., Washington, D. C.
HOWARD MELVILLE HANNA, 747 Fifth Ave., New York
GEORGE L. HARRISON, JR., 400 Chestnut St., Philadelphia, Pa.
JOHN HOWLAND, 20 East Eager St., Baltimore, Md.
DR. WALTER B. JAMES, 17 West 54th St., New York
JAMES HATHAWAY KIDDER, 111 Broadway, New York
C. GRANT LA FARGE, 101 Park Ave., New York
DR. ALEXANDER LAMBERT, 36 East 31st St., New York
TOWNSEND LAWRENCE, 319 Fifth Ave., New York
EDWARD HUBERT LITCHFIELD, 44 Wall St., New York
FRANK LYMAN, 82 Wall St., New York
GEORGE H. LYMAN, 351 Commonwealth Ave., Boston, Mass.
THEODORE LYMAN, Heath St., Brookline, Mass.
CHARLES B. MACDONALD, 71 Broadway, New York
PERCY C. MADEIRA, North American Building, Philadelphia, Pa.
COL. HENRY MAY, 1325 K St., Washington, D. C.
DR. JOHN K. MITCHELL, 1730 Spruce St., Philadelphia, Pa.

Dr. Lewis Rutherfurd Morris, 155 W. 58th St., New York
Dr. Paul Outerbridge, 49 W. 74th St., New York
Hon. Boies Penrose, U. S. Senate, Washington, D. C.
R. A. F. Penrose, Jr., 460 Bullitt Bldg, Philadelphia, Pa.
Robert Forbes Perkins, Framingham, Mass.
Henry Clay Pierce, 15 East 57th St., New York
John J. Pierrepont, 1 Pierrepont Pl., Brooklyn, N. Y.
Amos R. E. Pinchot, 60 Broadway, New York
Gifford Pinchot, 1615 Rhode Island Ave., Washington, D. C.
Wilson Potter, Chestnut Hill, Philadelphia, Pa.
George D. Pratt, Pratt Institute, Ryerson St., Bklyn., N.Y.
John Hill Prentice, 23 East 69th St., New York
A. Phimister Proctor, 168 East 51st St., New York
Percy Rivington Pyne, 680 Park Ave., New York
Douglas Robinson, 9 East 63d St., New York
Archibald Rogers, Hyde Park-on-Hudson, N. Y.
Dr. John Rogers, 102 East 30th St., New York
Kermit Roosevelt, Brazil Railway Co., Sao Paulo, Brazil
Hon. Elihu Root, U. S. Senate, Washington, D. C.
Bronson Rumsey, 676 Ellicott Square, Buffalo, N. Y.
Laurence D. Rumsey, 330 Delaware Ave., Buffalo, N. Y.
Alden Sampson, Century Club, New York
Dr. Leonard C. Sanford, 347 Temple St., New Haven, Conn.
Hon. William Cary Sanger, Sangerfield, N. Y.
Dr. John L. Seward, 416 Main St., Orange, N. J.
Charles Sheldon, 140 West 57th St., New York
Dr. A. Donaldson Smith, Kaolin, Chester Co., Pa.
Dr. William Lord Smith, 9 Willow St., Boston, Mass.
Frederick M. Stephenson, Chicago Club, Chicago, Ill.
E. LeRoy Stewart, Fishkill-on-Hudson, N. Y.
Henry L. Stimson, 32 Liberty St., New York
Lewis S. Thompson, Red Bank, N. J.
Major William Austin Wadsworth, Geneseo, N. Y.
James Sibley Watson, 11 Prince St., Rochester, N. Y.
Caspar Whitney, Lawrence Park, Bronxville, N. Y.
William Fitzhugh Whitehouse, 319 Fifth Ave., New York
E. P. Wilbur, Jr., 515 Delaware Ave., South Bethlehem, Pa.

GENERAL ROGER D. WILLIAMS, Lexington, Ky.
OWEN WISTER, 1004 West End Trust Bldg., Philadelphia, Pa.
J. WALTER WOOD, 31 Fifth Ave., New York

HONORARY MEMBERS.

DR. DANIEL GIRAUD ELLIOT,
American Museum of Natural History, New York
PROF. HENRY FAIRFIELD OSBORN, 850 Madison Ave., New York
COL. WILLIAM D. PICKETT, 228 Campsie Pl., Lexington, Ky.
HON. THEODORE ROOSEVELT, Oyster Bay, N. Y.

ASSOCIATE MEMBERS.

DR. WILLIAM L. ABBOTT, Srinagar, Kashmir, India
CARL E. AKELEY, American Museum of Natural History, New York
LIEUT.-COL. HENRY T. ALLEN, War Department, Washington, D. C.
DR. J. A. ALLEN, American Museum of Natural History, New York
BRIG.-GEN. GEORGE S. ANDERSON, University Club, New York
LIEUT.-GEN. JOHN C. BATES, 1313 Massachusetts Ave., N. W., Washington, D C.
HON. TRUXTON BEALE, 28 Jackson Pl., Washington, D. C.
HON. D. C. BEAMAN, 732 Equitable Building, Denver, Colo.
MAJOR F. A. BOUTELLE, 335 Pioneer Bldg., Seattle, Wash.
COL. DAVID L. BRAINARD, War Department, Washington, D. C.
WILLIAM B. BRISTOW, 2 Rector St., New York
EDWARD NORTH BUXTON, Knighton, Buckhurst Hill, Essex, England
WILLIAM B. CABOT, 447 Marlborough St., Boston, Mass.
COL. CHAS. J. CRANE, 9th Infantry, Fort Thomas, Ky.
BRIG.-GEN. WM. E. DOUGHERTY, 2887 East 14th St., Fruitvale, Cal.
LIEUT.-COL. FRANK A. EDWARDS, American Legation, Berne, Switzerland
JOHN STERETT GITTINGS, Ashburton, Baltimore, Md.

GEORGE H. GOULD, P. O. Box 275, Santa Barbara, Cal.
HENRY S. GRAVES, U. S. Forest Service, Washington, D. C.
MAJOR-GEN. ADOLPHUS W. GREELY, 1914 G St., N. W., Washington, D C.
DR. RAMON GUITERAS, 75 West 55th St., New York
MAJOR MOSES HARRIS, 346 Broadway, New York
HENRY W. HENSHAW, Biological Survey, Department of Agriculture, Washington, D. C.
DR. WILLIAM T. HORNADAY, N. Y. Zoological Park, N. Y.
HON. W. E. HUMPHREY, House of Representatives, Washington, D C.
HON. JOHN F. LACEY, Oskaloosa, Iowa
COL. OSMUN LATROBE, Metropolitan Club, New York
HON. HENRY CABOT LODGE, Nahant, Mass.
A. P. LOW, Victoria Memorial Museum, Ottawa, Can.
PROF. JOHN BACH MACMASTER, University of Pennsylvania, Philadelphia, Pa.
CAPT. FRANK R. MCCOY, War Department, Washington, D. C.
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